# Environmental Protection Agency North Denver Soils Remediation Project Number 9837-038-001

# Quality Control Report

## Presented by:

Environmental Chemical Corporation 999 18<sup>th</sup> Street Suite 2350 Denver, CO 80202 Phone: (303)-298-7607

Fax: (303)-298-7837

This report contains information that was developed from October 1998 to November 1998, on the E.P.A. North Denver Soils Site in Denver, Colorado. This project included the surgical remediation of 18 residential properties, backfill, landscaping, fencing, concrete work, etc. Included will be Pre Excavation and Construction Plans (P.E.C.P.'s), engineering diagrams, finished property Quality Control reports, as well as finished property photographs.

Following is a list of the properties that were remediated in this particular project.

East 47 <sup>th</sup> Street	(b) (6) Thompson Court
Steele Street	Steele Street
Vine Street	Vine Street
Saint Paul Court	Saint Paul Court
Steele Street	Saint Paul Court
Adams Street	Madison Street
Clayton Street	Adams Street
Clayton Street	Humbolt Street
Clayton Street	Steel Street

## E.P.A. North Denver Soils Site Property Matrix

dress:	Prior. Compl	Start Date:	Stop Date:	Engineering:	P.E.C.P.:	Excavation:	Backfill:	Landscape:	Fence:	Concrete:
E. 47th St.	Complete	10-13-98	10-16-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
hompson	Complete	10-13-98	10-16-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Steele	Complete	10-16-98	10-20-96	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Steele	Complete	10-16-98	10-20-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Jine	Complete	10-20-98	10-22-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Jine	Complete	10-22-98	10-30-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
st Paul	Complete	10-22-98	10-28-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
St. Paul	Complete	10-29-98	11-3-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Steele	Complete	11-6-98	11-11-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
St. Paul	Complete	11-5-98	11-11-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Adams	Complete	11-3-98	11-6-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Madison		11-11-98	11-16-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Clayton	Complete	11-9-98	11-11-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Adams	Complete	11-17-98	11-20-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Clayton	Complete	11-11-98	11-16-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Iumbolt	Complete	11-20-98	11-25-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Clayton	Complete	11-16-98	11-20-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Steele	Complete	11-19-98	11-25-98	Complete	Complete	Complete	Complete	Complete	Complete	Complete

**Table of Contents** 1 LONDSON G. 2 INEST. 3 TEELE ST. HUMBOLT ST. 4 16. MADISON ST. 47th St. 5 Steele St. 17. 18. VINE ST. 6 7 ST. PAML G. CLAYTON ST. 8 ADAMS ST. 9 STEELE ST. 10 ClayTON St. 11 12 St. Paul Gr. ADAMS ST. 13 Clayron St. 14 STRECE ST. 15

AVERY ®

READY INDEX™ INDEXING SYSTEM

## Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

## Finished Property Quality Control

Date: 11-25 18	(b) (6) Physical Address:
P.E.C.P. Followed Yes No	Excavation Depth: 12"
Comments and/or Follow Up  Items:  - Your No Tan  - Tacy enty comple (c	
According to all negotiations and the P.E.C.P., to any warranties, either expressed or implied, by state responsibility of the subcontractor and the holes (b) (6)	ubcontractors. Subcontractor warranties are
Patrick Heyheman Date Quality Control Manager	
lames Brenkendorff Date Senior Response Manager	

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



OPhysical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Fhompson Court

October 12, 1998

October 21, 1998

Denver, CO

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the vertex meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any larked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

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#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.
- \*Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential rds.

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#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions.

#### 9.0 Pedestrian Traffic Concerns and Exposures

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Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

#### 12.0 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

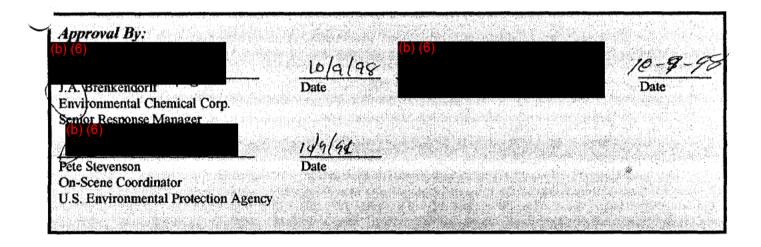
(1) Front End Loader

#### Special Homeowner Instructions Approved by EPA

- \* Landscape rock will replace sod on north and south side of house with an additional five foot border on the east side of house.
- \* Move east sprinklers away from house.
- \* Leave south east flower bed and replace with same plants.
- \* Remove fence and/or gates on sides of house, move to compound and replace when complete.
- \* Eliminate Plum tree #2 and replace with Lilac.
- \* Remove Juniper #1.
- \* Move sheds to compound and replace to same location, on the ground. Set on treated lumber.
- \* Remove and replace clothesline.
- \* Leave west garden areas on property line.
- \* Metal borders on west edge of property, remove and replace with mow strip.
- \* Leave north side garden area and replace with same plants.
- \* Watch for electric wire to sprinkler control box.
- \* Concrete is in good shape.

#### 14.0 Additional Information

The City of Denver will be notified of work locations on a daily basis.



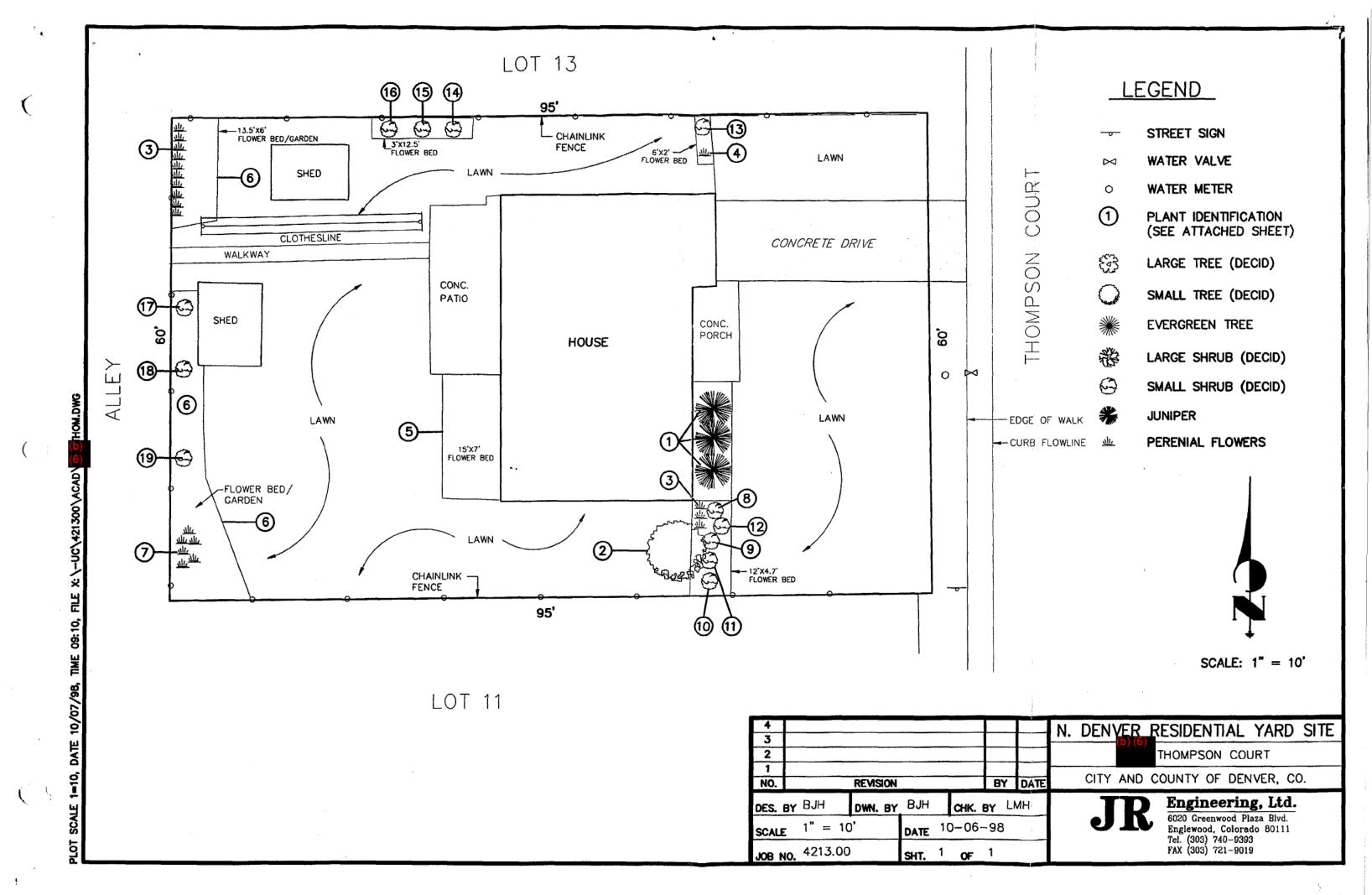
Lot No:

Lot 12. Block 2. Columbine Addition

Owner: Address:

Thompson Ct.

Item #	# QTY English Name		Y English Name Latin Name Size		
1.	3	Juniper	Juniperus	Sp 5' x	
			Horizontolis	14.5	
			(Hughes)		
2.	1	Plum	Prunus	Ht. 8'	
			Sargenti	SP. 10'	
3.	3 Dozen	IRIS	tidaceae		
4	1	Lilac	Syringavulgaris	Ht. 7'	
4.	1	Lilac	Syringavulgaris	1 1	
-	-	F1		Sp. 4'	
5.	6	Flower bed		See plan	
6.	32	flower bed/ garden		See plan	
7.	12	Day lily	Lilaceae		
8.	1	Rosa	Rosa	Ht. 3'	
				Sp. 2'	
9.	1	66	"	"	
Í					
10.	1	**	W 11	66	
	-		46	- 44	
11.	1	"	"	"	
12.	1	"	n n	11	
12.	1			1	
13.	1	66	66	Ht. 4'	
				Sp. 10'	
14.	1	"	66	Ht. 3'	
				Sp .3'	
15.	1	66	"	Ht 3'	
				Sp. 3'	
16.	1	"	66	Ht .3'	
				Sp 3'	
17.	1	44	66	Ht. 3'	
				Sp.12'	
18.	1	Rosa	Rosa	Ht. 4'	
				Sp. 10'	
19.	1	46	44	Ht. 4"	
				Sp. 6'	
20.	1	66	66	Ht. 4"	
20.	1	1	1	П. 4	



# EPA REGION VIII SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID # 484254

# IMAGERY COVER SHEET UNSCANNABLE ITEM(S)

Contact the Superfund Records Center to view this (these) document(s). (303-312-6473)

SITE NAME: Vasquez Boulevard & I-70

REPORT OR DOCUMENT TITLE: North Denver 501/5
Remediation Project Number 9837-038-001, Quality
Control Report - Completion Reports, Photos d
Remediation Plan For 15 Properties at the site
DATE OF DOCUMENT: 1///98
DESCRIPTION: 3 platagraphs

## Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

## Finished Property Quality Control

Date: 11-17-98		(b) (6) Physical Address:	VINE STREET
P.E.C.P. Followed Yes N	0	Excavation Depth: 12	, , ,
Comments and/or Follow U  Items:  -FENCE TIME ON  WILL TALK W	North prop	erte boroler is	Crooken.
- WATER IJARO	M-W-F.		
According to all negotiation any warranties, either exprethe responsibility of the subsection (b) (6)  Homeowner Signature	essed or implied, by su	beontractors. Subcontract	
Patrick Heyn <del>o</del> man Quality Control Manager	1/-17-98 Date		
James Brénkendorff V Senior Response Manager	Date		

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

(1) (6) (6) (ine Street

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

/ine Street

Denver, CO

October 21, 1998

October 26, 1998

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Steel plates will be used to preserve concrete flat work at equipment crossings.

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A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

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A cavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

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- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods in Juding nights, holidays, or sundays.

- \*Crows will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hands.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential borhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

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(1) Skid Loader

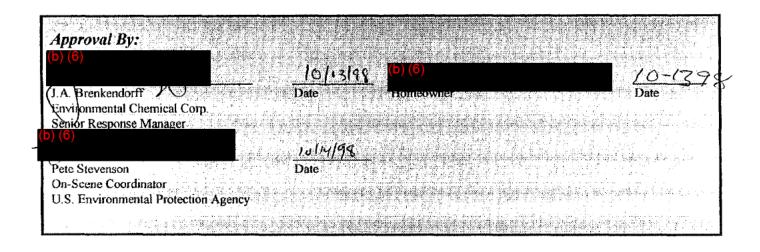
- (2) 14 cy Tandem Dump Trucks
- (1) Landscape Tractor
- (1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

- \* Remove gravel and sidewalk from driveway and replace with gravel. Or (Reu.)
- \* Remove fence from perimeter of property and replace when done. Fence to be stored at yard.
- \* Slope soil away from yard and tie into existing sidewalk.
- \* Remove rose #12 and replace with live rose when done.
- \* Trees #5, 6 and 7, hand excavate and leave in place.
- \* Tree #8 remove and replace.
- \* Remove and replace Nectarine tree #2. or Chury \* Blue Spruce #1, excavate by hand and leve in place.
- \* Mulch around all trees. -
- \* Clothesline posts, with the exception of the far west post, will be removed to yard and replaced.
- \* Remove gravel on the far west side of property and replace as well as the gravel between the fence and sidewalk on the south side.

#### **Additional Information**

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



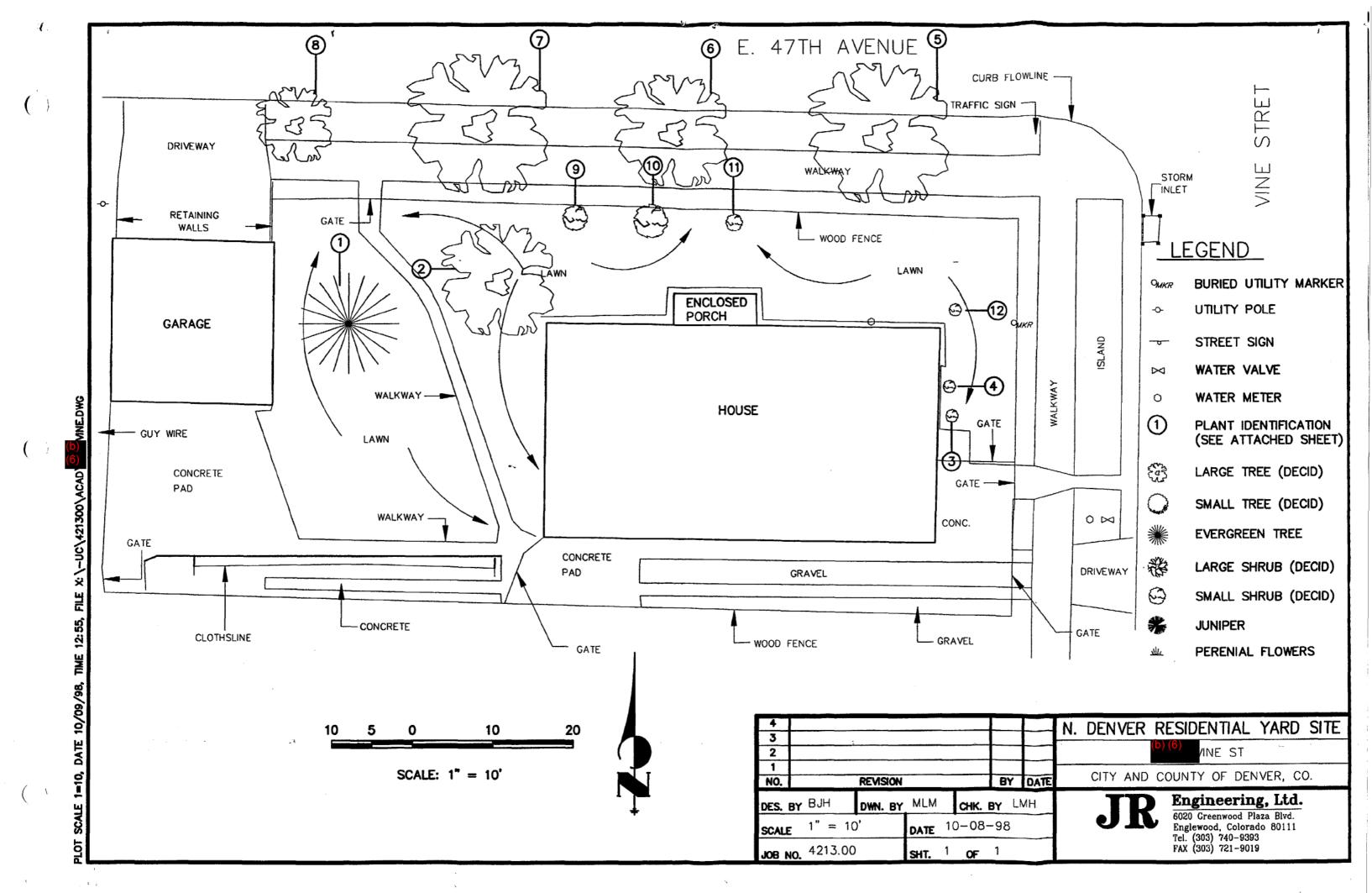
Lot No:

Lots 49&50, Block 15, Elyria

Owner:
Address:

/ine St.

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Colorado Blue Spruce	Picea Pungens glauca	DBH 41/2 Ht. 10' Sp.10'	Top cut out
2.	1	Pin Cherry	Prunus Pensylvanica	Ht. 12' SP 12'	2 stem DBH of 4"&2" in poor condition not full, pruning of dead branches.
3.	1	Peony	Paeonia	Ht. 1 ½' Sp. 1 ½'	
4.	1	Zinnia	Asteraceae		
5.	1	Green Ash	Fraxinus pennsylvanica lanceolata	DBH 4"	Trees in general good health 15' to 20' Ht. Sp. 12'to15'-multi stem at 12'Ht & 6'Sp. Ht 20' Sp. 15'
6.	1	66		DBH 4" Ht. 15' Sp.12'	
7.	1	••	"	DBH 4' Ht. 20' Sp. 15'	
8.	1	cc	"	Multi stem DBH 1 ½' @ Ht.12' Sp.8'	
9.	1	Rose	Rosa	Ht 3' Sp. 3'	
10.	1	"		Ht. 5' Sp. 4'	
11.	1	"		Ht. 3' Sp. 2'	
12.	1	66	66	Dead	
13.					
14.					·



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DOC ID #484254

# IMAGERY COVER SHEET UNSCANNABLE ITEM(S)

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SITE NAME: VASQUEZ BOULEVARD AND I-70

REPORT OR DOCUMENT TITLE: NORTH DENVER SOILS REMEDIATION
PROJECT NUMBER 9837-038-001, QUALITY CONTROL REPORT - COMPLETION
DEDODTE DIOTOE & DEMEDIATION DI ANTEOD 15 DECENTIES ATTUE SITE
REPORTS, PHOTOS & REMEDIATION PLAN FOR 15 PROPERTIES AT THE SITE
INCLUDED
<b>DATE OF DOCUMENT</b> : 11/1/1998
DATE OF DOCUMENT. 11/1/1998
DESCRIPTION: 3 PHOTOS

## Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

## Finished Property Quality Control

Date: 11-30-98		Physical Address:_	Steele
P.E.C.P. Followed: Yes N	o	Excavation Depth:	12"
Comments and/or Follow U	<sup>J</sup> p		
According to all negotiation any warranties, either expre	ssed or implied, by su	bcontractors. Subcontra	
(b) (6)  Nomeowner Signature			
Patrick Heyneman Quality Control Manager	//-30~98 Date		
Jaines Brenkendorff Scnior Response Manager	11/30/98 Date		

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

Steele

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Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present at immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.

#### 12.0 Equipment Requirements

(1) 4,000 gallon Water Truck(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

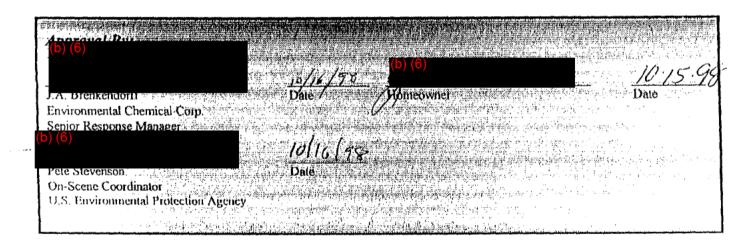
(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

- \* Remove front sidewalk and replace.
- \* Remove driveway (two strips) and replace with full width driveway.
- \* Remove tree #1 (tree service) with no replacement.
- \* Remove 18" x 30" concrete pad in front. (If not cistren cover)
- \* Detroy and remove dog house.
- \* Remove concrete curbing in back yard with no replacement.
- \* Remove fence to yard and replace.
- \* Take border fence with 4940 Steele down, take to yard and replace.
- \* Remove concrete curbing along garage and replace with sod.
- \* Move swing set to yard and replace.
- \* Remove roses and don't replace.
- \* Remove all debris between garage and fence and remove to dumpster.
- \* Small area between sidewalk and house in back, replace with concrete. L

#### 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.

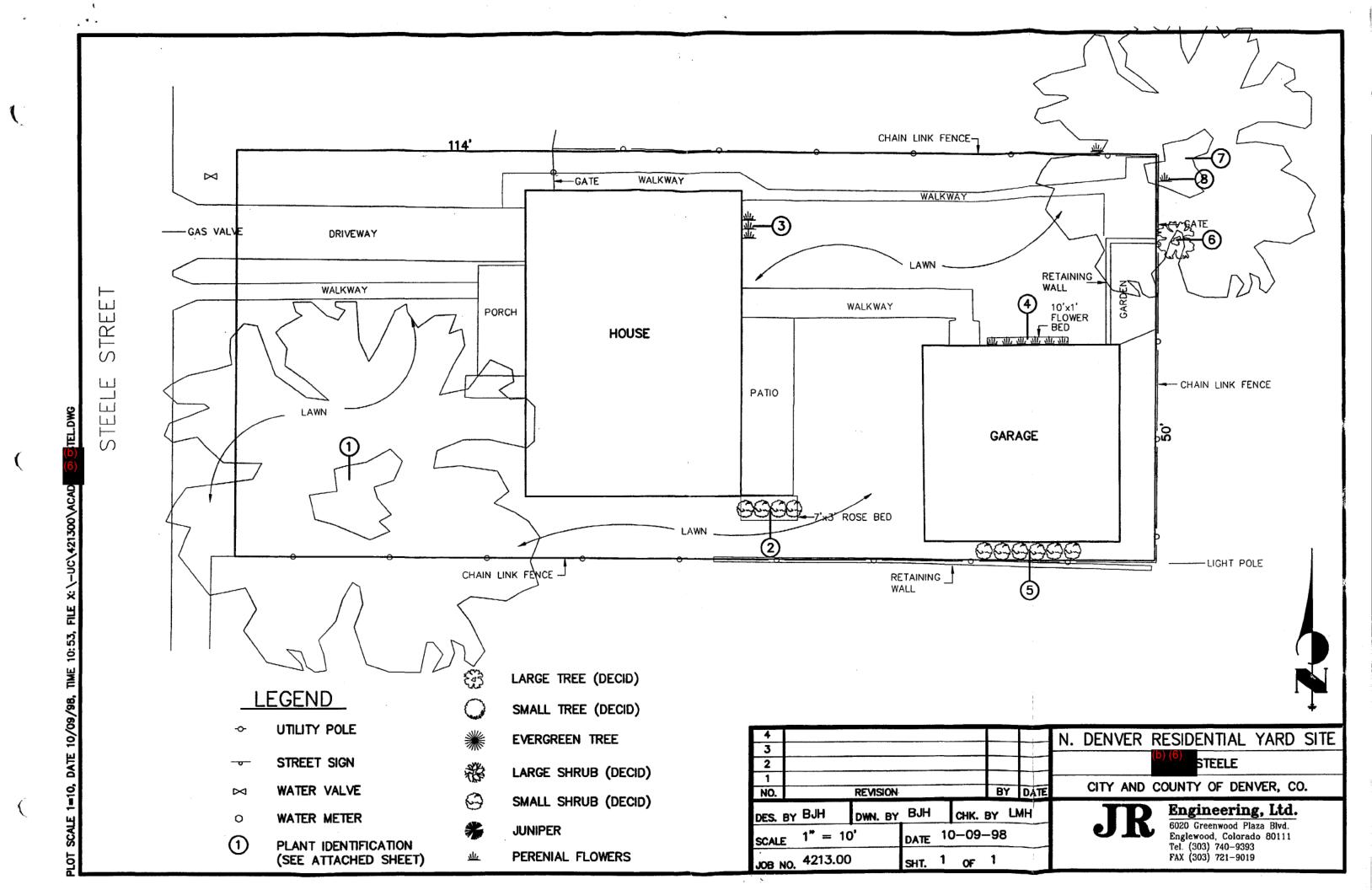


# Lot No:Lot 3, Block 1, East Cawker Addition Owner: (b) (6)

Address

Steele

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Silver maple	Acer	DBH 2'	
			saccharinum	Ht. 60	
				Sp. 40	
2.	4	Rose	Rosa	Ht. 6'	5' x 7' planting bed
				Sp. 6'	
3.	3	Morning	Impomoea	1.2' x 16'	
		glory vine	-	planting bed	
4.	6	Perenial		1' x 10'	6' x 15' planting bed
		flower bed			
5.	6	Rose	Rosa	Ht. 6'	
				Sp. 6'	
6.	1	Siberian elm	Ulmus	Multi stem	
			pumila	Ht. 6'	
				Sp. 4'	
7.	1	Tree of	Ailanthus	DBH 10"	In alley
		Heaven	altissima	Ht. 25'	
				Sp. 30'	
8.	1	Ivy	Hedera	Ht. 3'	
,				Sp. 6'	
9.					
10.					
11.					
12.					
13.					
14.					
15.					·



## EPA REGION VIII SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID #484254

# IMAGERY COVER SHEET UNSCANNABLE ITEM(S)

Contact the Superfund Records Center to view this (these) document(s). (303-312-6473)

SITE NAME: VASQUEZ BOULEVARD AND I-70

REPORT OR DOCUMENT TITLE: NORTH DENVER SOILS REMEDIATION

PROJECT NUMBER 9837-038-001, QUALITY CONTROL REPORT - COMPLETION

REPORTS, PHOTOS & REMEDIATION PLAN FOR 15 PROPERTIES AT THE SITE

INCLUDED

DATE OF DOCUMENT: 11/1/1998

DESCRIPTION: 3 PHOTOS

## Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

## Finished Property Quality Control

Date: //-30.98	Physical Address:
P.E.C.P. Followed: Yes N	o Excavation Depth: <u>ラロー</u>
Comments and/or Follow U  Items:  - Rose bush front w  - Sid is a seriage - T  - Simany Clotheshies	
	s and the P.E.C.P., this property is completed. This does not cover
	ssed or implied, by subcontractors. Subcontractor warranties are contractor and the homeowner.  11-30-18  Date
Patrick Heynetran Quality Control Manager	11-3098 Date
James Brenkendorff  Senior Response Manager	11/3c /98 Date

#### PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

St. Paul Ct.

Denver, CO

10/26/30

10/30/53

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the water meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any v rarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then handexample value test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site

All excavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.

- \*C-ews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential him ds.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential hborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible.

All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

#### 12.0 Equipment Requirements

(1) 331 Mini Excavator

(1) Skid Loader

(1) 4,000 gallon Water Truck(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

Note: Give owners advance notice to move vehicles.

#### Front of House

- \*Remove and replace Rose #1 & #2.
- \*Make a gradual slope to the sidewalk, blend in steps & water meter.
- \*Remove lilac #3, replace with rose.

#### North Side

\*Be cautious of the fence. Hand dig carefully.

#### South Side

- \*Grade to the bottom of the fence, remove bricks.
- \*Remove #5 & #6. Do not replace.
- \*1 eave concrete curb.

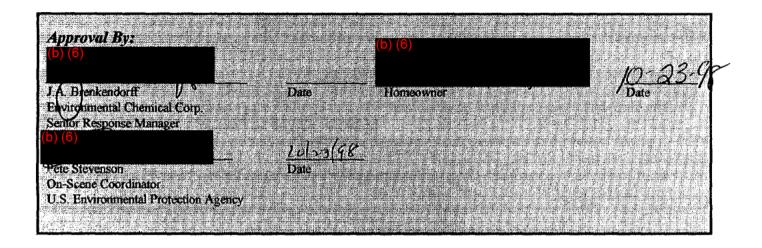
#### Back of House

- \*Remove brick patio, replace with grass.
  \*Remove and replace clothsline.
- \*Remove tree #7. Replace with a Silver Maple.
  \*Shed has been moved. Remove old foundation.
- \*Gravel from alley to front of garage on northeast corner.
- \*Remove dog run.
- \*Remove all brush north of the garage.
- \*Match grade on northwest corner of property to concrete wall on north side.

  \*Near alley, remove concrete pad to seam at fence. Gravel to alley & tie into driveway.

#### 14 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



Lot No:

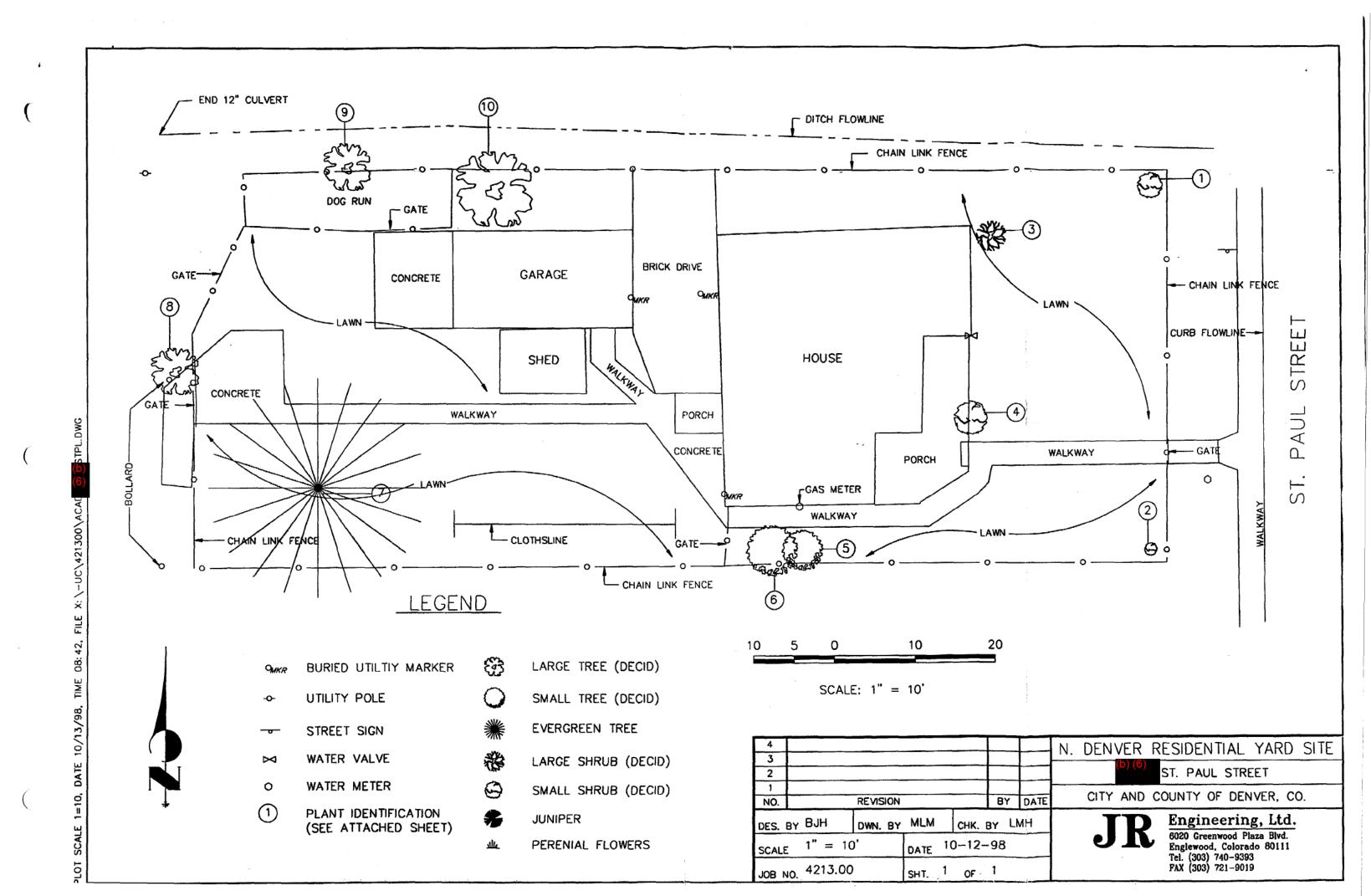
Lots 47 & 48. Block 3. North Swaysea Addition

Owner:

Address:

St. Paul Street

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Rose	Rosaceae	Ht. 3'	
				Sp 3'	
2.	1	Rose	Rosaceae	Ht 2'	
				Sp 1 ½'	
3.	1	Lilac	Syringa	Ht 4'	
			vulgaris	Sp 3'	
4.	1	Rose	Rosaceae	Ht 5'	
		(climber)		Sp 4'	
5.	1	Cotoneaster	Cotoneaster	Ht 6'	
			divaricatus	Sp 4'	
6.	1	Service	Amelachier	Ht 5'	
		berry	arborea	Sp 5'	
7. 1	1	Serbian	Picea	DBH 1'	
		Spruce	omorika	Ht 25', sp	
				25'	
8.	1	Tree of	Ailanthus	Ht 12'	
		Heaven	altissima	Sp 5'	
9.	1	Siberian	Ulmus	Ht 6'	
		Elm	pumila	Sp 5'	
10.	1	Siberian	Ulmus	Ht 8'	
		Elm	pumila	Sp 8'	
11.					
12.					
13.					
14.					
15.					



# EPA REGION VIII SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID #484254

# IMAGERY COVER SHEET UNSCANNABLE ITEM(S)

Contact the Superfund Records Center to view this (these) document(s). (303-312-6473)

SITE NAME: VASQUEZ BOULEVARD AND I-70

REPORT OR DOCUMENT TITLE: NORTH DENVER SOILS REMEDIATION
PROJECT NUMBER 9837-038-001, QUALITY CONTROL REPORT - COMPLETION
REPORTS, PHOTOS & REMEDIATION PLAN FOR 15 PROPERTIES AT THE SITE
INCLUDED
DATE OF DOCUMENT: 11/1/1998
DESCRIPTION: 3 PHOTOS

## PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

b) (6) Steele Street

November 2, 1998

November 4, 1998

Denver, CO

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the er meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

A cavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

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- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods bluding nights, holidays, or Sundays.

- \* ws will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers recreise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential heighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

#### 12 Quipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

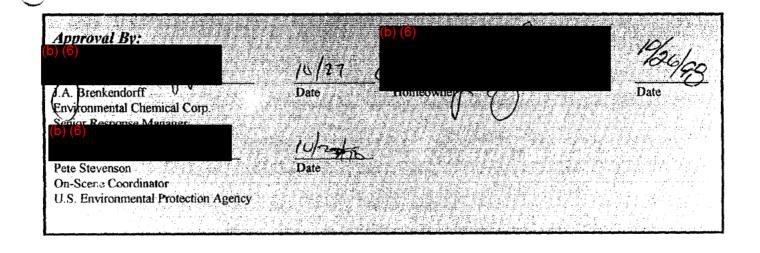
(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

- \* This excavation is front and side yard only.
- \* Remove brick planter on side of house and replace. (landscaper)
- \* Remove Junipers number 1 and 2, with no replacement.
- \* Remove Rose number 4 with no replacement. PM-
- \* Remove Rose of Sharon number 3 and replace with new to front middle yard. (northwest corner)
- \* Remove brick border in front of house (west side) and replace with concrete mow strip.
- \* Hand excavate front planter, replace with fill, with no new plants.
- \* Remove and replace unknown plant.

#### 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



# Lot No:Lot 3. Buckley Subdivision Owner: (b) (6)

6

Address: Steele

Item#	QTY	<b>English Name</b>	Lafin Name	Size	Disposition
1.	1	Gray Gleam	Juniperus	DBH 8"	
		Juniper	scopulorum	Ht.12'	
		-	1	Sp. 9'	
2.	1	66	66	"	
3.	1	Rose of sharon	Hibiscus	Multi stem	
			syriacus	Ht. 12'	
				Sp. 5'	
4.	2	Rose	Rosa	Ht 8'	
		Climber		Sp. 3'	
5.		Amur	Ligustrum	Trimed	Spirea privit
		Privet	Amurense	Hedge	
				Ht 4'	-
				Sp3'	
6.	½ doz	Iris	Iridaceae	- Sp5	Pren flower bed
0.	72 002	1115	indaceae		Fiell flower bed
7.	Bed	Garden Phlox	Polemoniacear	Ht. 2'	
8.	1 doz	Flax	Linum	Ht. 2'	Pren flower bed
9.	1 ½ doz	Iris	Iridaceae		
10.	4	Rose	Rosa	Ht. 1'-3'	
	<u> </u>			Sp. 1'-3'	
11.	6	Variegated	Celastraceae	Ht. 1.5'	2 beds
	]	euonymus		Sp. 3'	
12.	2 doz	Flax	Linom	Ht. 2'	Pren flower bed
12.	2 402				
13.	1	Siberian Elm	Ulmus Pumila	Ht. 4'	
13.	1	Siddinan Ziiii		Sp. 3'	
14.	Doz	Iris	Iridaceae	J.Sp. 3	
15.	1	Lilac	Lonicera	Ht. 3'	
		Honysuckle	Syringantha	Sp. 3'	
16.	1	Siberian elm	Ulmus pumila	Ht. 5' Sp. 3'	
17.	1	"	46	Ht. 8'	
17.	1			Sp.5'	
18.	1	Siberian elm	Ulums pumila	Multi stem	
	_			Ht.6'	
·		1		Sp. 5'	

19.	1	Littleleaf	Tilia cordata	DBH 1' 6"	
$\neg$		Linden		Ht. 30'	
			•	Sp. 40'	

### Memorandum

To: Pat Hineman, Environmental Chemical Corporation

Lisa Crider, CET Environmental Services CC:

From: Lewis Helms, JR Engineering, LTD.

10/29/98 Date:

Steele Street Re:

#### Addition of plants to yard survey

The plants found between the front porch and the juniper:

Quantity:

Common name: common Trumpetcreeper

Latin name:

Campsis radicans

Size:

Ht. 1' Sp. 12"

Quantity: ·

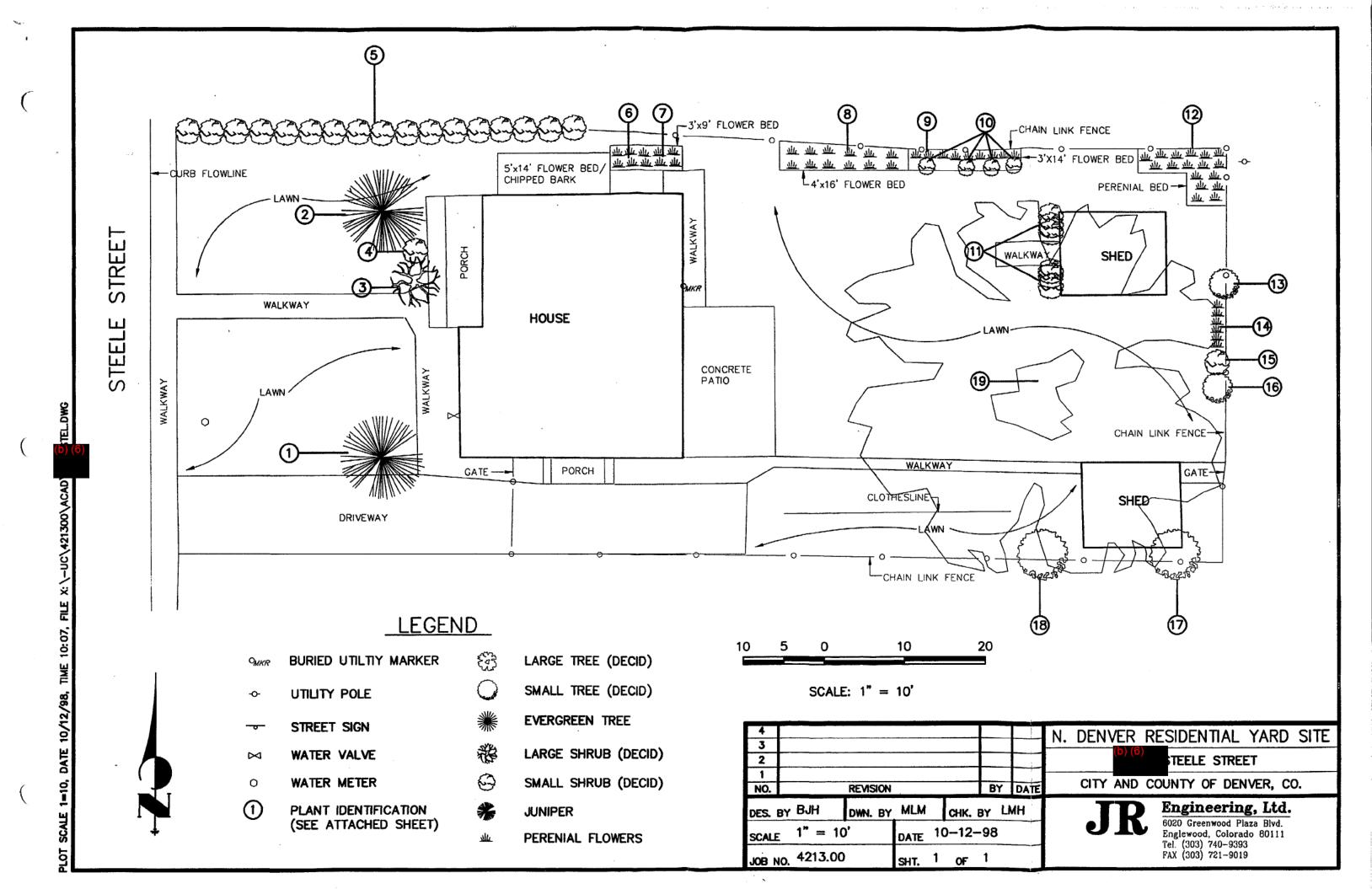
Common name: Columbine

Latin name:

Aquilegia

Size:

Ht. 8" Sp. 6"



# Color Photo(s)

The following photos contain color that does not appear in the scanned images.

To view the actual images please contact the Superfund Record Center at (303) 312-6473.





#### Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

#### Finished Property Quality Control

Date: 12-3-98	Physical Address: VINE St.
P.E.C.P. Followed Yes No	Excavation Depth: 12 "
Comments and/or Follow Up Items: -None water	
0	
James Brenkendorff / U Date  Senior Response Manager	8

## PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Vine Street

10-23-98

10-29-98

Denver, CO

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the ter meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

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The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden area will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump true and removed from the site.

A<sup>11</sup> excavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

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#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

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- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present as immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.

- \* ws will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential ighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorize person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

#### **Equipment Requirements**

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

\*Take out climbing roses (#13, #14, #16, #17), replace with regular roses. Marvix at the National Firehorns in place, replace roses (#18 & #19) w/ additional Firehorns (5 total). Place 2 on the north side of the entrance and three on the south side.

- \*Replace Green Ash (#1) with a Red Maple
- \*Replace entire sprinkler system.
- \*Remove tree #3 and replace with Butterfly Bush.
- \*Replace Spearmint plants in front porch area, near junction with house
- \*Leave concrete posts in front fence at the entrance, work around them if possible.
- \*Replace sidewalks that are damaged by our activities.

#### South Side

Temove Red Hickory (#6) and Peach (#5). Replace Peach in area between trees #7 and #8.

Remove decking and hand excavate. Replace with new decking. (Note: Coordinate w/owner. This may change.)

\*Remove playhouse to staging area. Coordinate with owner.

#### Back of House

- \*Remove trees #9, #8, #4, #11, & #12. Need tree service for all because of proximity to overhead lines.
- \*Hand dig sewer line on northwest corner of property (between house and storage building).

\*Remove tree #7.

\*Remove main walkway and branch section, save pad at storage building. Sa, & ALL Covered from

\*Replace trees #9 & #12 with Silver Maples.

\*Place gravel in area along alley and up to the garage and the east side of the storage building.

\*Take down back fence and replace when done.

#### North Side

\*Clear out debris. If window glass and frames are still there when job starts, place in storage.

#### 14 Additional Information

Celia Vanderloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.

b) (6)	12/21/98			
A. Brenkendorff UU	Date	Homeowner		Date
y ronmental Chemical Corp.		AND AND A CONTRACT OF STREET		
nior Response Manager			ing res	Andrews
te Stevenson	Date		กลุ่มค.ศ. 25 ค.ศ. 25 ค	
n-Scene Coordinator		eriya kuri kalendar		
S. Environmental Protection Agency	การเครื่อง การเการ์	Jan 197 Burgara San Pilan		

(b) (6) Ane Street	(b) (6)	Ané Street
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Addendum to original agreement per Pete Stevenson, U.S.E.P.A.: (November 3, 1998 @ 10:00 am)

- \* Replace two squares of city sidewalk. (concrete contractor) <
- \* Replace front walk to porch and from sidewalk to street. (concrete contractor)
- \* Walk from deck to alley. (concrete contractor) V
- \* 5' x 7' slab in front of Carriage House, tie into walk mentioned above. (concrete contractor)
- \* 4' x 4' slab in front of garage, tie into walk mentioned above. (concrete contractor)
- \* Concrete curb in front of house. (concrete contractor) <
- \* Grind 2 stumps. (tree service) \( \sqrt{}
- \* North side of house to fence and area between garage and neighbors garage, lay fabric and place 11-1 landscape rock. (landscaper)
- \* Gravel driveway from garage to alley.
- \* Start work no earlier than 8:00 am. 🗸

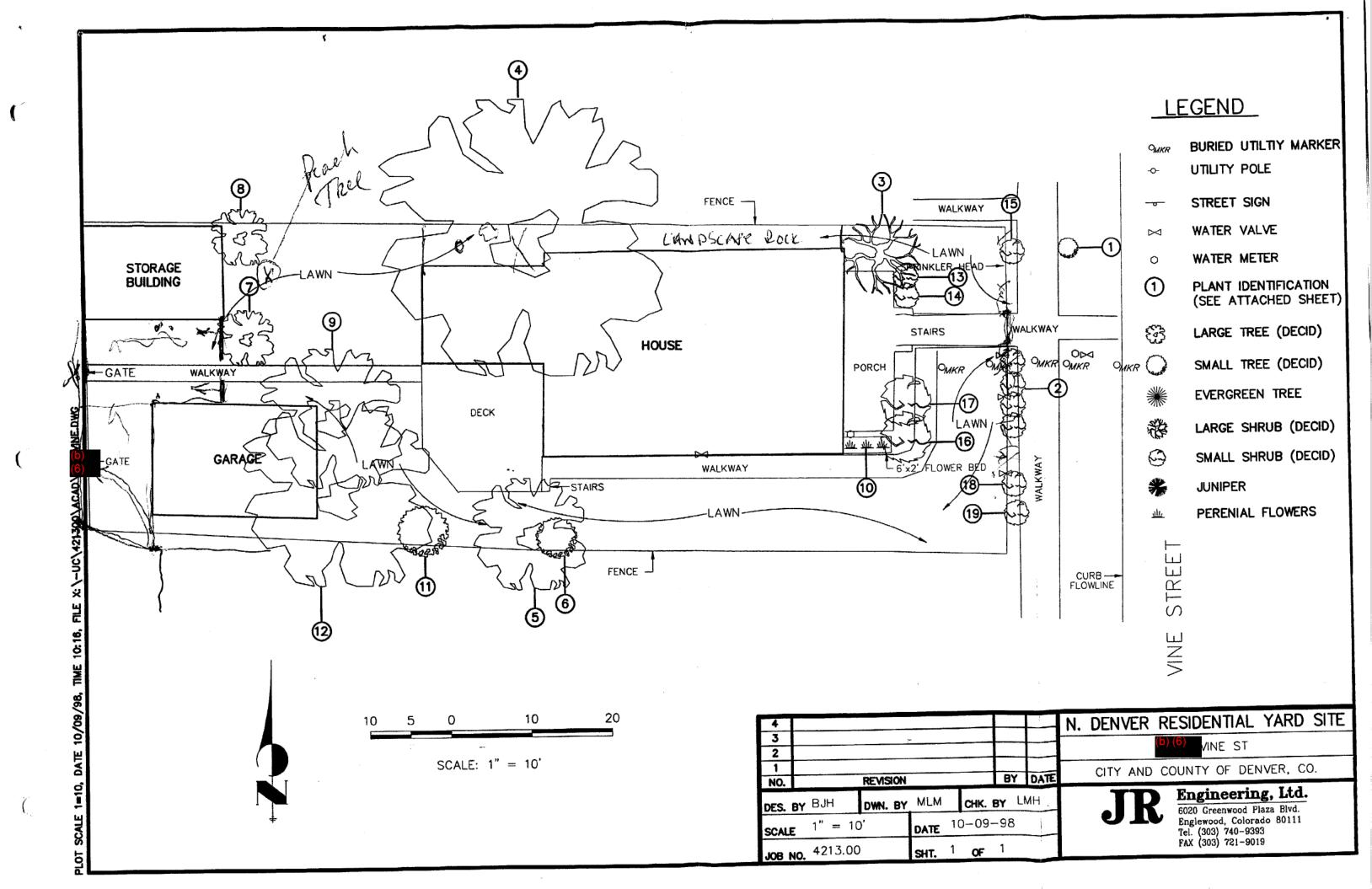
Lot No: Lot 43 and N. ½ Lot 42, except rear 5', Block 4, Elyria

Owner:

Address: Vine Street

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Green Ash	Fraxinus	2.5"DBH	
1.	1	Green 71sh	Pennsylvanica	Z.S DDII	
			Lancelata		
2.	12 L.F.	Firehorn	Pyracantha	Ht. 4'	
			coccinea	Sp.3'	
				Trimed hetge	
				8	
3.	1	Mock	Philadelphus	Ht. 12'	Clump
	-	orange	Coronarius	Sp.8'	
			<u> </u>		7,100
4.	1	Tree of	Ailanthus	Ht. 50'-30'	
		Heaven	Altissima	DBH-10"-	
_			1	12"	
5.	1	Cherry Pin	Prunus	DBH-4"	
			Nemsylvanica	Ht.12'	
		<u> </u>	n 0 1:	Sp.12'	
6.	1	Red	Eayra Ovalis	Ht 6'	
		Hickory		Sp.4'	
7.	1	Sugar	Acer	DBH 1 ½ "	
		Maple	saccharum	Ht. 15'	
0		Develle		Sp. 6'	
8.	1	Boxelder	Acer negundo	DBH 4" Ht. 20'	
				Sp.20'	
9.		Chinese	Cendrela	DBH 6"	
9.		Toon	sinensis	Ht. 20'	
		10011	3111011313	Sp 15'	
10.		Mint	Lamiaceae	Ground	
10.		spearmint	Damiacac	cover	
		pourmin		1 1/2 ' 2'	·
11.	1	Box Elder	Acer	1DBH 1 ½'	
***			Negundo	Ht 12'	
				Sp 5'	
12.	1	Tree of	Ailanthus	DBH 12'	
		Heaven	Altissima	Ht 30'	
				SP 20'	
13.	1	Rose	Rosa	Ht 8 '	
				Sp 3'	
				_	

14.	1	Rose	Rosa	Ht 8'	
				Sp 3'	
15.	1	Rose	Rosa	Ht 4'	
				Sp 3'	
16.	1	Rose	Rosa	Ht 10'	
	1			Sp 6'	
17.	1	Rose	Rosa	Ht 10'	
1	1	}		Sp 6'	
18.	1	Rose	Rosa	Ht 4'	
				Sp 3'	



#### PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

St. Paul Ct.

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

St. Paul Ct.

Denver, CO

11/0/08

11/13/98

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the vor meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then handexcavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks I removed from the site.

All excavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- cavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.

- \*Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

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The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers we exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

#### 12.0 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

#### Front of Home

- \*Save #6, hand dig.
- \*Remove #4, #5 & #9, do not replace.
- \*Remove #2 & #3, replace with same. (landscaper)
- \*Remove and replace #7 & #8. (landscaper)
- \*Take out landscape curbing, replace with grass. (landscaper)
- \*Form and place road base on sidewalk from front porch to front walk, 3' wide. (ECC)
- \*Homeowner wants to change driveway area. The area to the south of the existing driveway will be formed and road base placed.

#### South Side

- \*P nove & replace walkway with concrete. (concrete)
- \*Nove and replace #10, #11, #12 (5 roses total) (landscaper)
- \*Dig garden area to 18" total.
- \*Remove and replace garden fences. (fence contractor)

#### North side

- \*Remove and replace #32 (2 x 36') (*landscaper*)
- \*Hand excavate walkway.

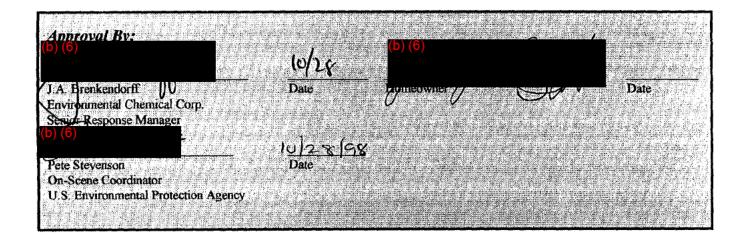
#### Back of home.

- \*Remove and replace 20 and 21 (3 roses total). (landscaper)
- \*Remove and replace Garden Flax (#19). (landscaper)
- \*Remove and do not replace #14, #15, #16, #17, #24, #25, #26, & #28.
- \*Remove #13, replace rose behind it. (landscaper)
- \*Remove and replace #18 with an Cherry Tree (edible). (landscaper)
- \*Remove and replace picket fence & remove all vegetation from behind it. (fence contractor)
- \*Place 2 peach trees at locations #28 & #29. (landscaper)
- \*Save #23, hand dig.



#### 14.0 Additional Information

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Lot No:

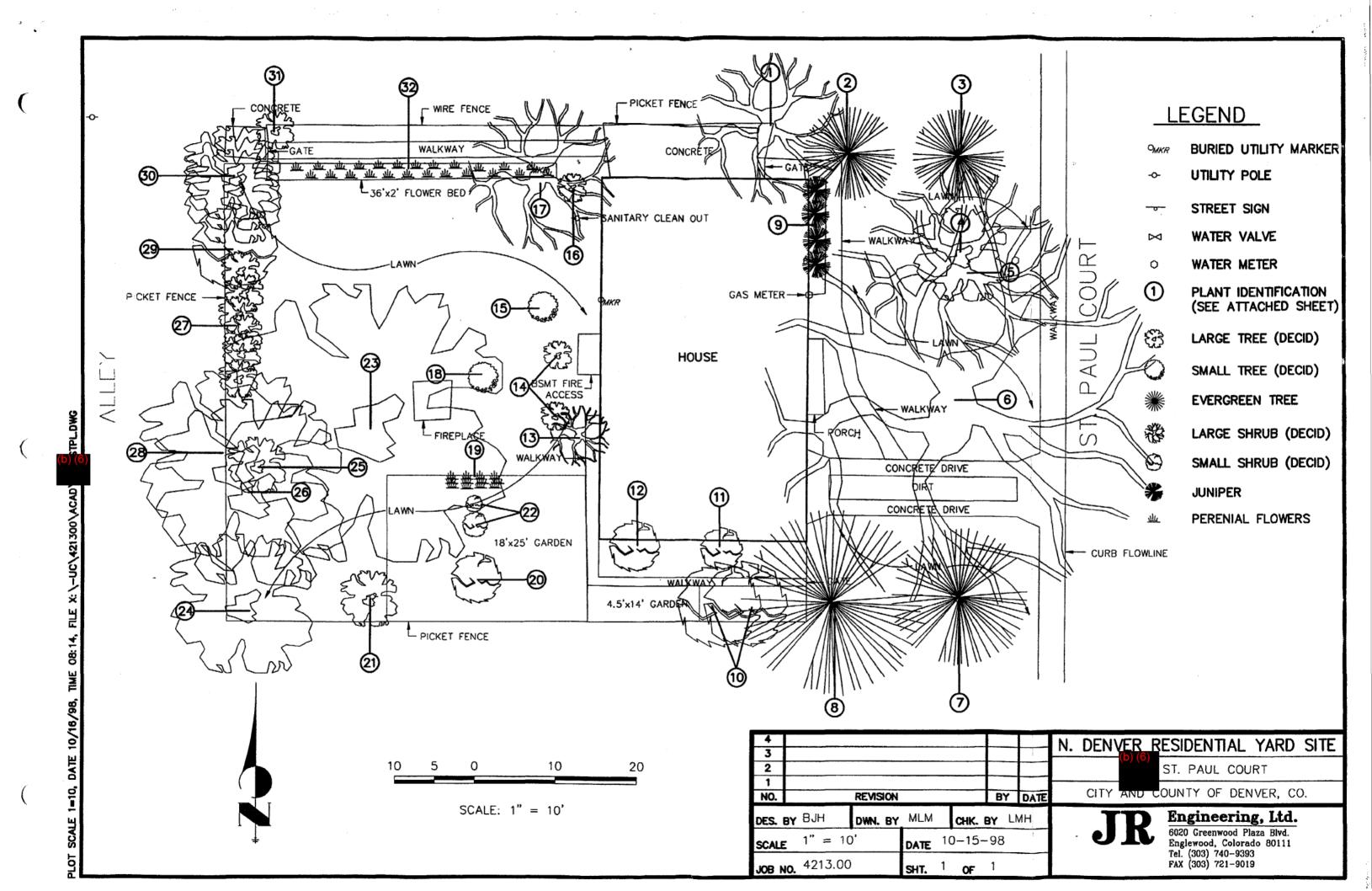
Lot 13, Block 3, Vasquez Court (b) (6)

Owner: .ddress:

St. Paul Ct.

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Spreading Euonymus	Eunoymus Kiautschovicus	Ht. 6', sp 12', multistems	
2.	1	Red Cedar	Juniperus Virginiana	2 stem, DBH 6" & 13", Ht. 12', sp 10'	
3.	1	Red Cedar	Juniperus Virginiana	DBH 6", Ht. 15', sp. 10'	
4.	1	Silver Maple	Acer Saccharinum	DBH 2", Ht. 15', sp. 10'	
5.	1	Pin Cherry	Prunus Pensylvanica	DBH 10", Ht. 25', sp. 20'	
6.	1	Pin Cherry	Prunus Pensylvanica	2 ½' base w 8 stemms DVH 5"- 1", Ht. 25', sp 40'	
7.	1	Red Cedar	Juniperus Virginiana	DBH 4" (2 stem) @ Ht. 20', sp. 40'	
8.	1	Red Cedar	Juniperus Virginiana	DBH 10", Ht. 25', sp 20'	
9.	4	Tam Juniper	Juniperus Sabina Tamariscifolia	Ht. 9', sp. 10'	
10.	2	Rose	Rosa	Ht. 9', sp. 10'	·
11.	1	Rose	Rosa	Ht. 6', sp. 5'	
12.	1	Rose	Rosa	Ht. 4', sp. 6'	
13.	1	Shrub althea	Hibiscus Syriacus	Multi-stem, Ht. 8', sp. 6'	
14.	2	Tree of Heaven	Ailanthus Altissima	Ht. 3', sp. 3'	
15.	1	Siberian	Ulmus Pumila	Ht. 4', sp.	

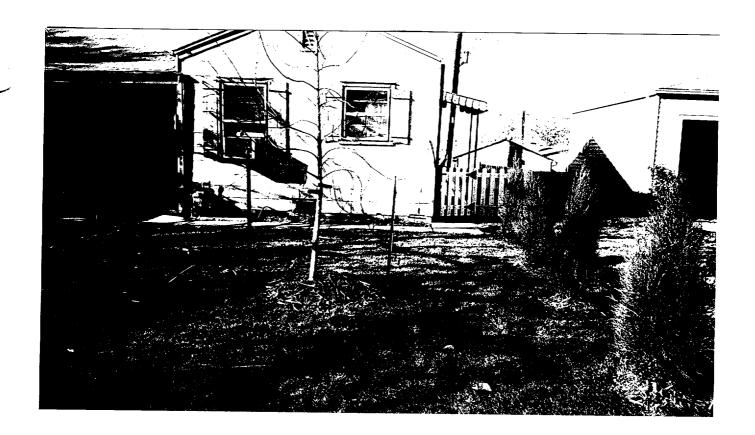
	T	Elm		3'	
16.	1	Tree of	Ailanthus	Ht. 3', sp.	
· ·		Heaven	Altissima	3'	
17.	1	Lilac	Syringa Vulgaris	Ht. 10', sp. 15'	
18.		Crabapple (ornimental)	Malos	Ht. 8', sp.	
19.	12	Garden Flax	Linum	Ht. 2'	
20.	1	Rose	Rosa	Ht. 6', sp.	
21.	1	Slippery Elm	Ulmus Fulva	Ht. 12', sp.	
22.	2	Rose	Rosa	Ht. 6'/3', sp. 3'/2'	
23.	1	Green Ash	Fraxinus Pennsylvanica Lancelata	2 stem, DBH 6" @ Ht. 40', sp.	
24.	1	Siberian Elm	Ulmus Pumila	DBH 12", Ht. 35', sp. 15'	
25.	1	Silver Maple	Acer Saccharinum	2 stems, DBH 1" @ Ht. 12'/8', sp 6'	
26.	1	Siberian Elm	Ulmus Pumila	2 stems, DBH 10' & 8", ht. 35', sp. 20'	
27.	12	Tree of Heaven	Ailanthus Altissima	Suckers along fence Ht. 3'-12'	
28.	1	Tree of Heaven	Ailanthus Altissima	DBH 12", Ht. 35', sp.	
29.		5 Leafy Ivy	Hedera	Climbing on fence, Ht. 3', sp. 10'	
30.	12	Siberian Elm	Ulmus Pumila	Multistems , Ht. 8' ± Sp. 10' ±	
31.	1	Tree of Heaven	Ailanthus Altissima	Ht. 6', sp. 4'	
32.		Iris Daisy Garden Flax	Iridaceae Chrysanthemum Linum	Flower bed	



# Color Photo(s)

The following photos contain color that does not appear in the scanned images.

To view the actual images please contact the Superfund Record Center at (303) 312-6473.





#### Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

#### Finished Property Quality Control

Date: 12-3-98		Physical Address:_	(b) (6) Chytry
P.E.C.P. Followed Yes N	ło	Excavation Depth:	12"
Comments and/or Follow I Items:	Jp S.		
According to all negotiation any warranties, either expre			
the responsibility of the sub (b) (6)  Homeowner Signature			tractor warrantes are
Patrick Heynethan Quality Control Manager	12-298 Date		
James Brenkendorff U Sepior Response Manager	12/4/96 Date		

# Poor Quality Source Document

The following document images have been scanned from the best available source copy.

To view the actual hard copy, contact the Superfund Records Center at 303-312-6473

#### PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



LOPhysical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Jayton

Denver, CO

Mid/Late November

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lin nay not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the water meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then handexcavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

'Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential nazards.

\*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

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#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be standard at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

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#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

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Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and lirected by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

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- \*—cavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.

#### 2.0 Equipment Requirements

) 331 Mini Excavator

(1) 4,000 gallon Water Truck

1) Skid Loader

(2) 14 cy Tandem Dump Trucks

1) Landscape Tractor

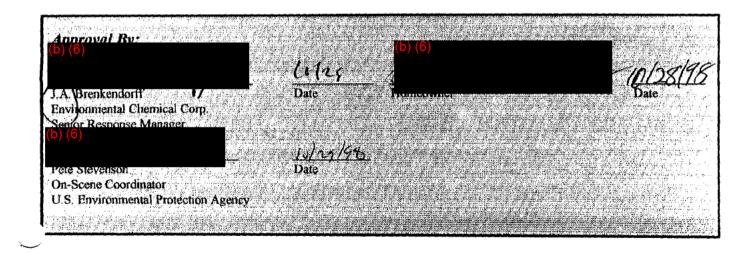
(1) Front End Loader

#### 3.0 Special Homeowner Instructions Approved by EPA

- \* Remove front and rear fence and replace when done. (ECC and fence contractor)
- \* Iris #2, remove, do not replace.
- \* Bean Vine #3, remove, do not replace.
- \* Elm #1, remove, do not replace.
- \* Remove tree from front of porch.
- \* Remove Roses and Service Berries, #4 and #6, replace with 2 Roses and 3 Service Berries. (landscaper)
- \* Between house and fence, hand excavate, remove Siberian Elm #9, do not replace and leave area in dirt.
- \* Rose #7, remove and replace. (landscaper)
- \* Iris #8, remove, do not replace.
- \* Small area between fence and walk, excavate by hand.
- \* C' 'hesline posts, remove and replace to same location.
- \* Fig. tree #10, remove and replace with Apple tree to center of yard.
- \* Apple tree #11, remove, do not replace.
- \* Cherry tree #12, remove, do not replace.
- \* Flagstone, remove and replace.

#### 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



Lot No:

Lot 12. Block 11. East Cawker Addition

Owner:

Address:

Clayton Street

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Siberian Elm	Ulmus	Ht 1' Sp 1'	
			pumila		
2.	½ Doz.	Iris	Iridaceae		
3.	Vine	Bean Vine	Dolichos	Ht 3' on fence	
				Length 30'	
4.	3	Serviceberry	Amelanchier	Ht 3'	
			Stoloniferia	Sp 3'	
5.	1	Siberian Elm	Ulmus	Ht 2'	
			pumila	Sp 2'	
6.	2	Rose	Rosa	Ht 2' Sp'	
7.	1	Rose	Rosa	Ht 1/2' Sp2'	
8.	½ Doz.	Iris	Iridaceae		
9.	2	Siberian Elm	Ulmus pumila	Ht 3' Sp 2'	
10.	1	Plum .	Prunus	DBH 8"	
				Ht 15' Sp 20'	
11.	1	Apple Tree	Malus	DBH 4"	
ا				Ht 15' Sp 20'	
12.	1	Cherry	Prunus	DBH 5" @	
	·			Forked -2 stems	
				Ht 15' Sp 15'	
13.	3	Rose	Rosa	Ht 5' Sp 6'	
				(combined)	

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# EPA REGION VIII SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID #484254

# IMAGERY COVER SHEET UNSCANNABLE ITEM(S)

Contact the Superfund Records Center to view this (these) document(s). (303-312-6473)

SITE NAME: VASQUEZ BOULEVARD AND I-70

DEPODE OF POCHWENT THE ENOPTH DESIGNED CON C DESCRIPTION
REPORT OR DOCUMENT TITLE: NORTH DENVER SOILS REMEDIATION
DROJECT NUMBER 0027 020 001 OUALITY CONTROL PERORT COMBLETION
PROJECT NUMBER 9837-038-001, QUALITY CONTROL REPORT - COMPLETION
DEDODTS DUOTOS & DEMEDIATION DI ANIGOD 15 DDODEDTIES AT THE SITE
REPORTS, PHOTOS & REMEDIATION PLAN FOR 15 PROPERTIES AT THE SITE
INCLUDED
INCLUDED
DATE OF DOCUMENT: 11/1/1998
DATE OF DOCUMENT. 11/1/1998
DESCRIPTION: 2 PHOTOS
DESCRIPTION. 2 PROTOS

# Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

# Finished Property Quality Control

Date:		Physical Address:_	Anams
P.E.C.P. Followed: Yes	No	Excavation Depth: / c	2''
Comments and/or Follow Items:	-		
According to all negotiation any warranties, either expr	essed or implied, by si	ubcontractors. Subcontrac	
(b) (6)  Homeowner Signature / (b) (6)	12-31-98 Date		
Patrick Heyneman/ Quality Control Manager	12-31-98 Date		
(b) (6)	12/21/98		
Senior Response Manager	Date		

#### PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

Adams .

1.0 Physical Location of Work:

2.0 Planned Start Date:

Mid November

3.0 Estimated Completion Date

Adams

Denver, CO

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the weet meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then handexcavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks removed from the site.

Al—cavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods uding nights, holidays, or sundays.

- \*Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be storing at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers we extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

### 12.0 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

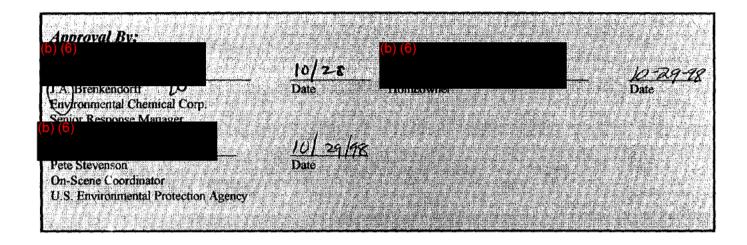
(1) Front End Loader

# 13.0 Special Homeowner Instructions Approved by EPA

- \* Save concrete as much as possible, replace as needed. (ECC/concrete contractor)
- \* Remove Siberian Elm, #1, do not replace.
- \* Remove Rose #2, replace. (landscaper)
- \* Remove metal strip on N.E. corner of house, replace with mow strip. (landscaper)
- \* Remove Iris (south of #2) and replace with Rose. (landscaper)
- \* Remove Table Top Juniper #3, and replace with Standing Juniper. (9' from walk/9' from house) (landscaper)
- \* Remove fence as needed and replace. (fence contractor)
- \* Remove Eastern Red Cedar #4, do not replace.
- \* Hand excavate Siberian Elm #5 and save.
- \* Remove white fence to yard and replace. (fence contractor)
- \* Hand excavate Green Ash #6 and save.
- \* Pemove Cherry Tree #7 and replace with Silver Maple. (18' from sidewalk/30' from house) (landscaper)
  \*\_move clothesline posts and replace with new. (9' from border fence) (ECC)
- \* Remove Elms #12 through #27, replace with 6' Cedar Privacy fence to corner of house. (fence contractor)
- \* Hand excavate trees on west property line (#8, 9, 10 & 11) and save.
- \* Dig driveway out, including small walk to garage and replace with gravel 45' from alley pad. This will be done on both sides of walk. Mow strips will be placed on the east end, with the N.E. mow strip being of the same design. (ECC/landscaper)
- \* Remove south fence line Elm, do not replace.
- \* Prior to Clearing and Grubbing, consult with homeowner.

### 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



				C 101	
1.5		~:·		Sp. 12'	
15.	1	Siberian	Ulmus pumila	DBH 4"	•
		Elm		Ht 15'	
				Sp 12'	
16.	1	Siberian	Ulmus pumila	2 stem	
		Elm	•	DBH 4"	
				&2"	
				Ht 25'	
				Sp 12'	
17.	1	Siberian	Ulmus pumila	DBH 4"	Dead top
17.	1	Elm	Omius pumma	Ht 8'	Dead top
		EIIII			
				Sp 6'	
18.	1	Siberian	Ulmus pumila	DBH 4"	
		Elm		Ht 15'	
				Sp 12'	
19.	1	Siberian	Ulmus pumila	DBH 6"	
		Elm	_	Ht 15'	
				Sp 12'	
20.	1	Siberian	Ulmus pumila	DBH 12"	
20.	1	Elm	Omas puma	Ht 40'	
				t .	
21	1	Cilerian	T 11	Sp 20'	
21.	1	Siberian	Ulmus pumila	DBH 12"	
		Elm		Ht 40'	Į .
` <del></del>				Sp 20'	
22.	1	Box Elder	Acer negundo	3 stems	
	1			DBH 3"±	,
	1.			ht 15	and the second s
				sp 12'	
				1	
23.	1	Siberian	Ulmus pumila	DBH 4"	
	1	Elm	Paris paris	Ht 15'	
				Sp 12'	,
24.	2	Siberian	Ulmus pumila	DBH 4" &	
24.	2	1	Offices pullifia	2"	
	· ·	Elm			
				Ht 15'	[
			<u> </u>	Sp 12'	
25.	1	Siberian	Ulmus pumila	Multi stem	
		Elm		Ht 8'	1
				Sp 12'	
26.	1	Siberian	Ulmus pumila	DBH 8" &	
1	1	Elm	1	5"	
				Ht 35'	
				Sp 20'	
27.	1	Tree of	Ailantus	Ht 6'	
121.	*	1	1	1	
1	1	Heaven	altissima	Sp 6'	

Lot No:

Lots 31 & 32 & S. 19' of Lot 33, Block 4, Ivanhoe

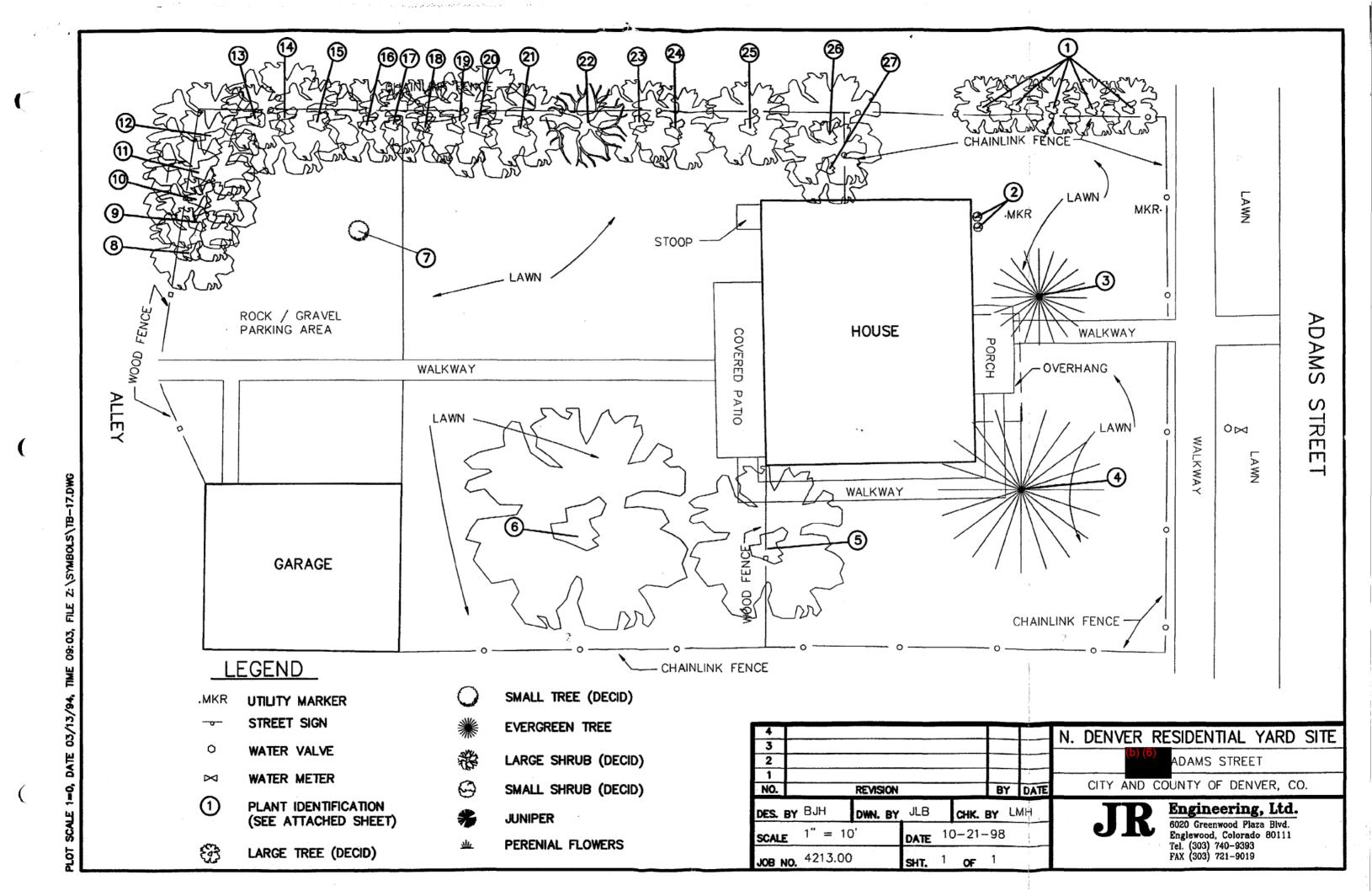
Owner:

(b) (6)

Address:

Adams

Item#	QTY	English Name	Latin Name	Size	Disposition
1.	5	Siberian Elm	Ulmus pumila	Ht 15' to 5' Sp 10' to 3'	
2.	2	Rose	Rosa	Ht 8 Sp 6' Ht 2' Sp 1'	
3.	1	Table Top Juniper	Juniperus scopulorum	Ht 8' Sp 12'	. *
4.	1	Eastern Red Cedar	Juniperus virginiana	DBH 6" Ht 15', Sp 20'	
5.	1	Siberian Elm	Ulmus pumila	DBH 8' Ht 35', sp 20'	
6.	1	Green Ash	Fraxinus pennsylvanica lanceolata	3 stems DBH 8"@ Ht 30', Sp 30'	
7.	1	Sargent Cherry	Prunus sargenti	6 stems DBH 10" to 4"	
5.0 11 ST		* Seeken over the company		Ht 35' sp	
8.	1	Siberian Elm	Ulmus pumila	1 DBH 6" Ht 20', Sp 12'	
9.	1	Siberian Elm	Ulmus pumila	DBH 6" Ht 20', Sp 12'	
10.	1	Siberian Elm	Ulmus pumila	DBH 2", Ht 15', Sp 6'	
11.	1	Siberian Elm	Ulmus pumila	DBH 3", Ht 15', Sp 6'	
12.	1	Siberian Elm	Ulmus pumila	DBH 3", Ht 15	
13.	1	Siberian Elm	Ulmus pumila		
14.	1.	Siberian Elm	Ulmus pumila	DBH 5:" Ht 15'	(h)



# Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

# Finished Property Quality Control

Date: 12-31-98		(b) (6) Physical Address:	Steele
P.E.C.P. Followed: Yes N	0	Excavation Depth: 13	)//
Comments and/or Follow U  Items: HOUK UP U  TO WATTER IN.	IP INDFILLEUND AIN (COLO. L	SPRINKLING ANDSCAPE).	SYSTEM
			· · · · · · · · · · · · · · · · · · ·
According to all negotiation any warranties, either exprethe responsibility of the substitute (b) (6)  Homeowner Signature (b) (6)	ssed or implied, by sub	contractors. Subcontract	
Patrick Heyneman / / Ouglity Control Manager	Date		
James Brenkendor (10) Senior Response Manager	12/21/40 Date		

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

(b) (6) Steele Street

1.0 Physical Location of Work

2.0 Planned Start Date:

3.0 Estimated Completion Date

Steele Street

Denver, CO

11/18/58

11/24/18

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

all excavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and lirected by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be ninimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- cavated areas will be barricaded using snow fencing or construction banner tape during non-working periods uding nights, holidays, or sundays.

- \*Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers we exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

### 12 **Aguipment Requirements**

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

Note: Homeowners do not speak english fluiently.

#### Front of Home

- \*Remove #2. Replace with a Silver Maple on north side of yard (in what is now driveway).
- \*Remove driveway, backfill and replace with sod. Install new driveway on south side of property, but just fill with dirt, owner will complete..
- \*Remove and replace sprinkler system. (Do not cover new driveway area.)
- \*Slope yard to sidewalk, remove railroad ties.
- \*Remove and replace #1. Hand dig #5 and save.
- \*Repair or replace front step at sidewalk.

- Reas walk

#### North Side (Front)

\*Remove hedge, replace with a 6' wood privacy fence. (Note: Have surveyors confirm and mark property lines.)

South Side (Back)

\*Remove #4, #6, #7, #8. Do not replace.

\*Hand dig Iris and replace with Iris (#9).

\*Remove and replace #10 & #11 (Peach trees). HAND ExerciATE & SAVE.

\*Remove (12)#13, & #14. Do not replace.

\*Remove last clothsline post to the east. Do not replace.

1 1-11-10 1 1-11-11-11

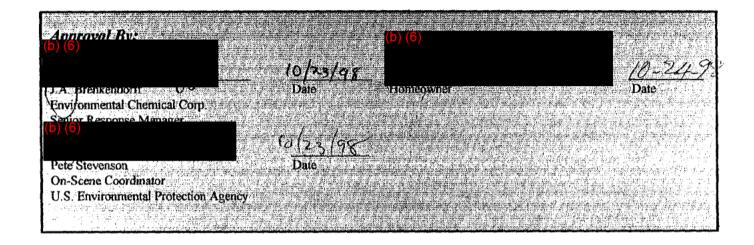
11-5-98

### North Side (Back)

- \*Remove #15, do not replace.
- \*Save shed.
- \*Remove #16.
- \*Place gravel on north side of home.

### 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



# Lot No:Lot 3 & 4, Block 46, First addition to Swansea Owner: (b) (6)

Address Steele

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	2	Juniper Table	Juniperus	Trimed	
		top blue	Scopulorum	Ht. 4' @	
			•	Sp. 6'	
2.	1	Chinese Elm	Ulmus	DBH 3'	
		-	Parvifolia	Ht. 60'	
	}			Sp. 60'	
3.	hedge	Amur privet	Ligustrum	Trimed to 6'	
			amurense	Ht. Sp.3'	
4.	5	Tree of	Ailanthus	5 stems	
		Heaven	altissima	Ht.6'	
				Sp. 6'	
5.	1 1	Arborvitae	Thuja	Ht. 10'	
			occidentalis	Sp.4'	
6.	1	Lemoine	Philadelphus	Ht. 5'	
•	-	mockorange	lemoinei	Sp.6'	
7.	1	Apple	Malus/prunus	DBH 1/3'	
, ·	•	1 Apple	manus/prunus	Ht. 18'	
	,			Sp. 20'	
8.	1	Climbing	Rosa	Ht. 2	
0.	1	rose	, xcosu	Sp. 3	
9.	Flower bed	Iris (doz	Iridaceae	2'x25'	
·	Tiower sea	1110 (402		2 123	
10.	1	Cherry tree	Prunus	Ht. 10	
		(ornimental)		Sp. 6'	
11.	1	46	66	Ht.7'	
				Sp.5'	
12.	1	44	cc .	Ht. 6'	
				Sp. 4'	
13.	1	Alpine	Ribes alpinum	Multi stem	
		currant		Ht. 15'	
				Sp. 12'	
14.	1	Climbing	Rosa .	Ht. 5	
		rose		Sp. 5	
15.	8-	Tree of	Alianthus	Ht. 15'	
		heaven	altissima	Sp. 4'	
16.	1	Common	Syringa	Ht.12'	
4		lilac	vulgaris	Sp. 12'	

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

(b) (6) Clayton Street

hysical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Clayton Street

Denver, CO

11/12/98

11/17/93

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the water meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

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Il exavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Cxcavated areas will be barricaded using snow fencing or construction banner tape during non-working periods —luding nights, holidays, or sundays.

- \*C s will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential monitorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

### 12 **Squipment Requirements**

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

#### Front of Home

\*Save tree 1, hand dig.

\*Remove and replace flagstone walk.

South Side(Front)
\*Remove #2 & #3. Replace with a Silver Maple in the front yard on the south end, and a crabapple in the side yard, south of the house.

\*Remove and replace fence. Sod side yard.

#### Back of House

\*Gravel in nook area next to the back door.

\*Gravel north side of driveway near shed.

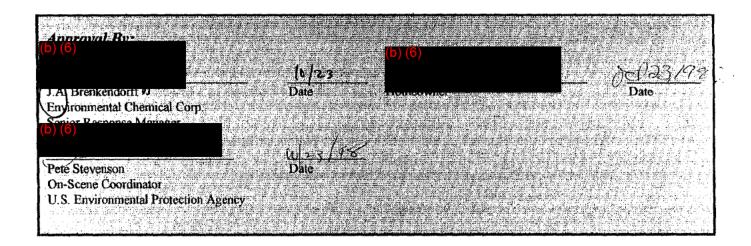
\*Pohind fence, take out & replace w/roadbase for driveway; gravel for the rest.

\*\_ve shed to driveway, take down fence & replace.

\*Place grass in small area on north side of home.

# 14. dditional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



ot No:

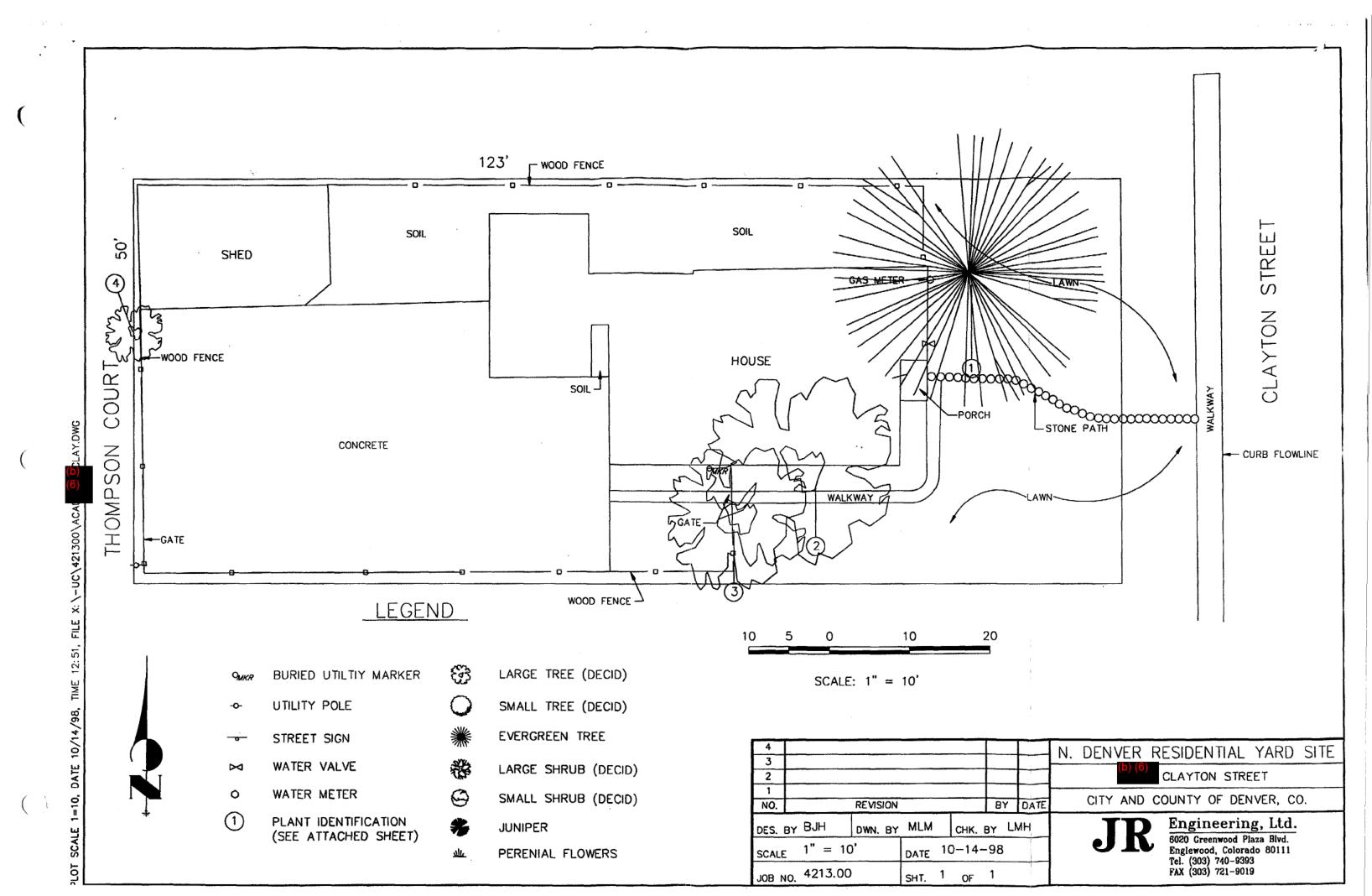
Lot 7. Block 1. Wulfekuhlers

Owner:

Address:

Clayton

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Easter red	Juniperus	2 stem	
	}	cedar	virginiana	DBH 8" & 6"	
			<u> </u>	Ht 30' Sp 30'	
2.	1	Tree of	Ailanthus	2 stem	
		Heaven	altissima	DBH 5" & 7"	
				Ht 25' Sp 20'	
3.	1		44	DBH 4 ½"	
		{		Ht 25' Sp 15'	ı
4.	1	"		DBH 1"	
}				HT 6' Sp 6'	







# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

t. Paul Ct.

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

St. Paul Ct.

Denver, CO

112/98

116/96

#### 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

#### 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility li may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the water meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks removed from the site.

Allexcavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

#### 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

#### 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

#### 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*\* cavated areas will be barricaded using snow fencing or construction banner tape during non-working periods building nights, holidays, or sundays.

- \*Coews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

#### 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

#### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

#### 12 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

#### 13.0 Special Homeowner Instructions Approved by EPA

Note: Intricate fencework in front and south side of home needs photo-documenting. Also, the owners of this home do not speak english fluently.

#### Front of Home

- \*Remove and replace wood fence, pavers, and brick edging.
- \*Grade down to level of the sidewalk.
- \*Save #1, hand dig. Remove edeging.
- \*Remove and replace #2 & #3.

#### South Side

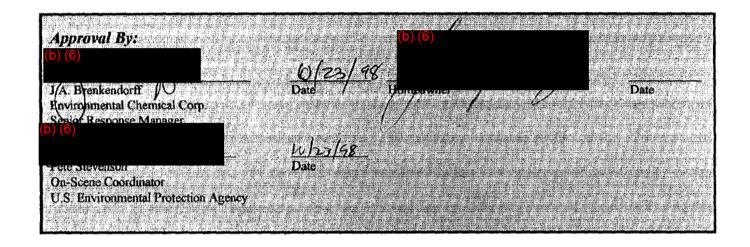
\* Replace fence, but remove gravel and edeging. Replace with sod. For the fence near the street, retain the gravel and ed ing.

#### North Side

- \*Remove and replace wood fence, gravel, and edeging.
- \*Remove and replace #12. Place sod in all areas.
- \*Remove all of #11. Do not replace.
- \*Remove sprinkler system. Replace with a legal system.
- \*Remove #5, do not replace.
- \*Remove wood fence to allow access to back yard. Replace when done.
- \*Leave #4. Hand dig.
- \*Remove garden area back to grade.
- \*Leave #7. Hand dig.
- \*Remove shed, extend fence to fill gap.

# 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



Lot No:

Lot 4, Block 4, Vasquez Court

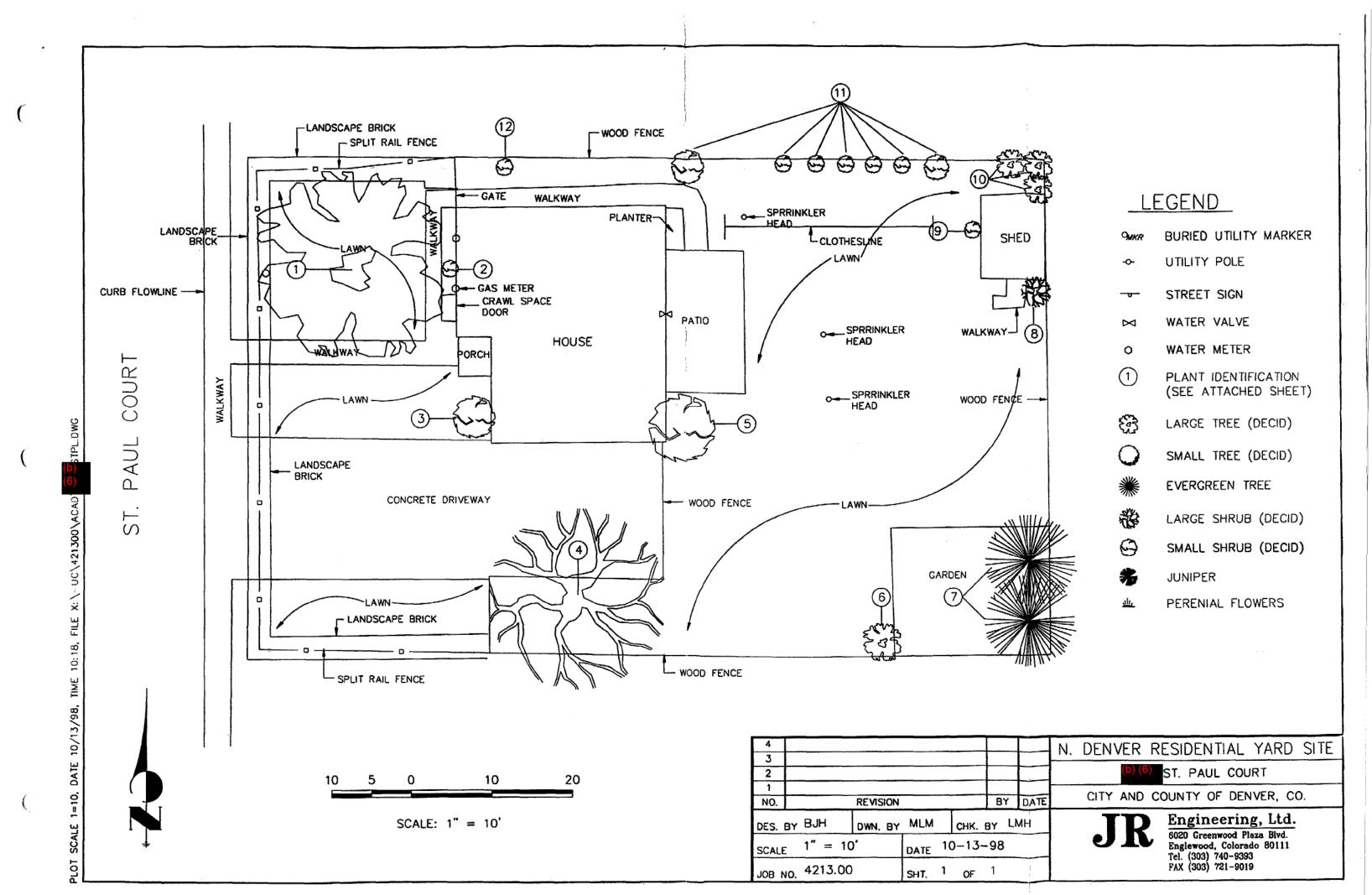
Owner:

(b) (6)

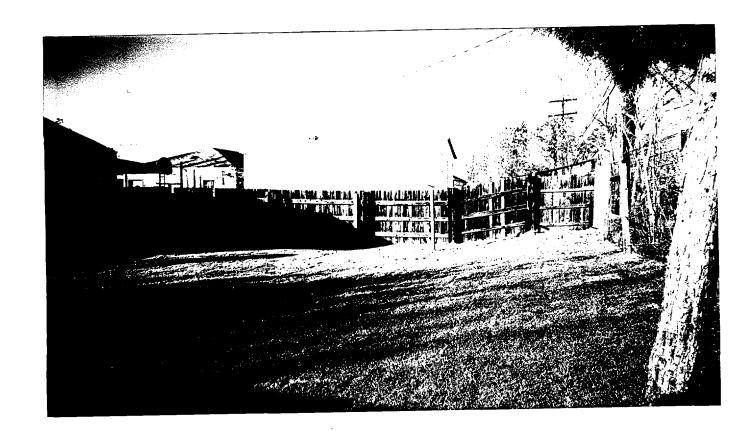
Address:

St. Paul Court

Item#	QTY	English Name	Latin Name	Size	Disposition
1.	1	Cottonwood	Populus	DBH 1 ½'	-
			sargenti	Ht 40'	
				SP 20'	
2.	1	Rose	Rosaceae	Ht 2'	
				Sp 2'	
3.	1	Rose	Rosaceae	Ht 8'	
	1	(Climbing)		Sp 5'	
4.	1	Cherry	Prunus	DBG 6"	
	1	(ornamental)		Ht 15', Sp 18'	
5.	1	Rose	Rosaceae	Ht 8'	
		(Climbing)	1	SP 8'	
6.	1	Tree of	Ailanthus	Ht 5'	
		Heaven	altissima	Sp 4'	
7.	2	Eastern Red	Juniperus	DBG 8" @ Ht	
		Cedar	virginiana	20', SP 10'@	
8.	1	Lilac	Syringa	Ht 4' Sp 3'	dying
	1		vulgaris		
9.	1	Rose	Rosaceae	Ht 2', Sp 2'	
10.	3	Tree of	Ailanthus	Ht 5' to 2'	·
		Heaven	altissima	Sp 4' to 2'	
11.	7	Rose	Rosaceae	Ht 6' to 11/2'	Series spaced 4' along fence
				Sp 4' to 2'	for 32' length
12.	1	Rose	Rosaceae	Ht 3', Sp 2'	
13.					
14.	1				
15.					







# Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

# Finished Property Quality Control

Date: /2-2-98		Physical Address:	ADAMS,
P.E.C.P. Followed: Yes	Йo	Excavation Depth:	
Comments and/or Follow I	U <b>p</b>		
- MOWSTRIP 15-5	78		
According to all negotiation any warranties, either exprethe responsibility of the sub	essed or implied, by s	ubcontractors. Subcontra	
Homeowner Signature (b) (6)	Date		
Patrick Heyneman Quality Control Manager	/2-298- Date		
James Brenkendorff Senior Response Manager	12/4/98 Date		

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

(<mark>b) (6)</mark> Adams

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Adams

Denver, CO

11/23/98

12/1/98

# 4.0 Chronological Plan of Activities

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- \*Backhoe and Excavator swing area

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# **Equipment Requirements**

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(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

# 13.0 Special Homeowner Instructions Approved by EPA

\* Remove front hedge number 1 and do not replace.

\* Hand dig Blue Spruces number and save. Trim lower branches.

- \* Excavate driveway and replace with road base. From corner of house to walk.
- \* Remove Perry Winkle number 7 and do not replace/
- \* Remove Rose number 8 and replace. (landscaper)
- \* Remove Silver Maples number 9, 11 and 17, and do not replace. (tree service)

\* Hand excavate Walnut number 10 and 18. (#18 contains 2 walnuts)

\* After excavation, between house and fence, leave dirt only. (landscaper/E.C.C.)

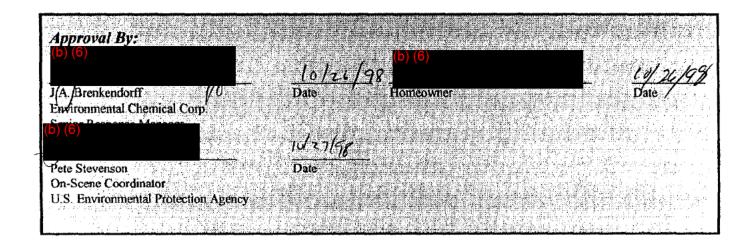
- \* Remove Arbor Vitae number 12, and replace with Standing Juniper, large size. (landscaper)
- \* Remove debris from front and rear of house, check with homeowner prior to moving.
- \* Mow strip on south side of house, mow strip on east side (#16 area), mow strip on north side from #18 to property line, mow strip on east property line (24" from fence), mow strip #31 area (3' x 20'). (*landscaper*)
- \* Rose number 14, remove and replace. (landscaper)

casberries, remove and do not replace.

- \* Remove Lilly number 16 and do not replace.
- \* Remove clothesline post to yard and replace when done.
- \* Remove Roses number 20 and 21 and do not replace.
- \* Remove Vine number 22, 23, 32 and 24 and do not replace.
- \* Remove back fence and replace with chainlink. (fence contractor)
- \* Remove and replace last 10 feet of back sidewalk, straight to alley, place gate at that location. (concrete and fence contractor)
- \* Remove incinerator to dumpster.
- \* Remove Siberian Elm number 25 and do not replace. (tree service)
- \* Remove Roses number 26 and replace. (landscaper)
- \* Remove Apricot trees number 27, 29 and 30 and do not replace.
- \* Remove Iris number 31 and replace.
- \* Hand excavate Apricot tree number 28 and save.
- \* Save brick and aluminum around shed.
- \* Remove shed to yard and replace when done.
- \* Move mower, wagon and fertilizer spreader to yard and return.

# `Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



Lot No:

Lot 2. Block 4. East Cawker Addition

Owner: Address:

Adams

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	30'	Border Privet	Liqustrum Obtusifolium	Hedge trimmed, Ht. 4', sp 4'	
2.	1	Colorado Blue Spruce	Picea Pungens	DBH 4", ht. 12', sp. 8'	
3.	1.	Colorado Blue Spruce	Picea Pungens	DBH 8", ht. 20', sp 15'	, -
4.	1	Colorado Blue Spruce	Picea Pungens	DBH 6", ht. 15', sp 10'	
5.	1	Upright Juniper	Juniperus chinensis	Ht. 3', sp. 1'	
6.	1	Box Elder	Acer Negundo	Ht. 5', sp. 4'	
7.	40	Periwinkle	Vinca Minor	Ground cover beds through out lot.	
8.	1	Rose (climbing)	Rosa	Ht. 8', sp. 6'	
9.	1 .	Silver Maple	Acer Saccharinum	BBH 12", Ht. 40', sp. 40'	
10.	1	Black Walnut	Juglans Nigra	DBH 12", ht. 45', sp. 40'	
11.	1	Silber Maple	Acer Saccharinum	Clump, DBH 6", 12", 12", ht. 40', sp. 40'	
12.	1	Arborvitae	Thuja occidentalis	Multiple stem, ht. 15', sp. 10'	
13.	8	Lily	Liliaceae		
14.	1	Rose	Rosa	Ht. 3', sp 3'	
15.	1	Jackman, Clematis	Clematis x jackmanii	Ht. 3' on fence, sp.3'	
16.	3	Lily	Liliaceae		
17.	1	Silver Maple	Acer Saccharinum	DBH 10", ht. 45', sp 35'	
18.	2	Black Walnut	Juglans nigra	BBH 12" & 10", Ht. 45', sp 40' (combined)	

Figure Engineering, Ltd. 6020 Greenwood Plaza Blvd.

6020 Greenwood Plaza Blvd, Englewood, Colorado 80111 (303) 740-9393 • FAX (303) 721-9019 www.jreng.com

# Memorandum

To: Pat Hineman, Environmental Chemical Corporation

CC: Lisa Crider, CET Environmental Services

From: Lewis Helms, JR Engineering, LTD.

Date: 10/29/98

Re:

(b) (6) dams Street

Addition of plants to yard survey

The succulent found next to the south side of the house:

Quantity:

12

Common name: Hen-and-chickens

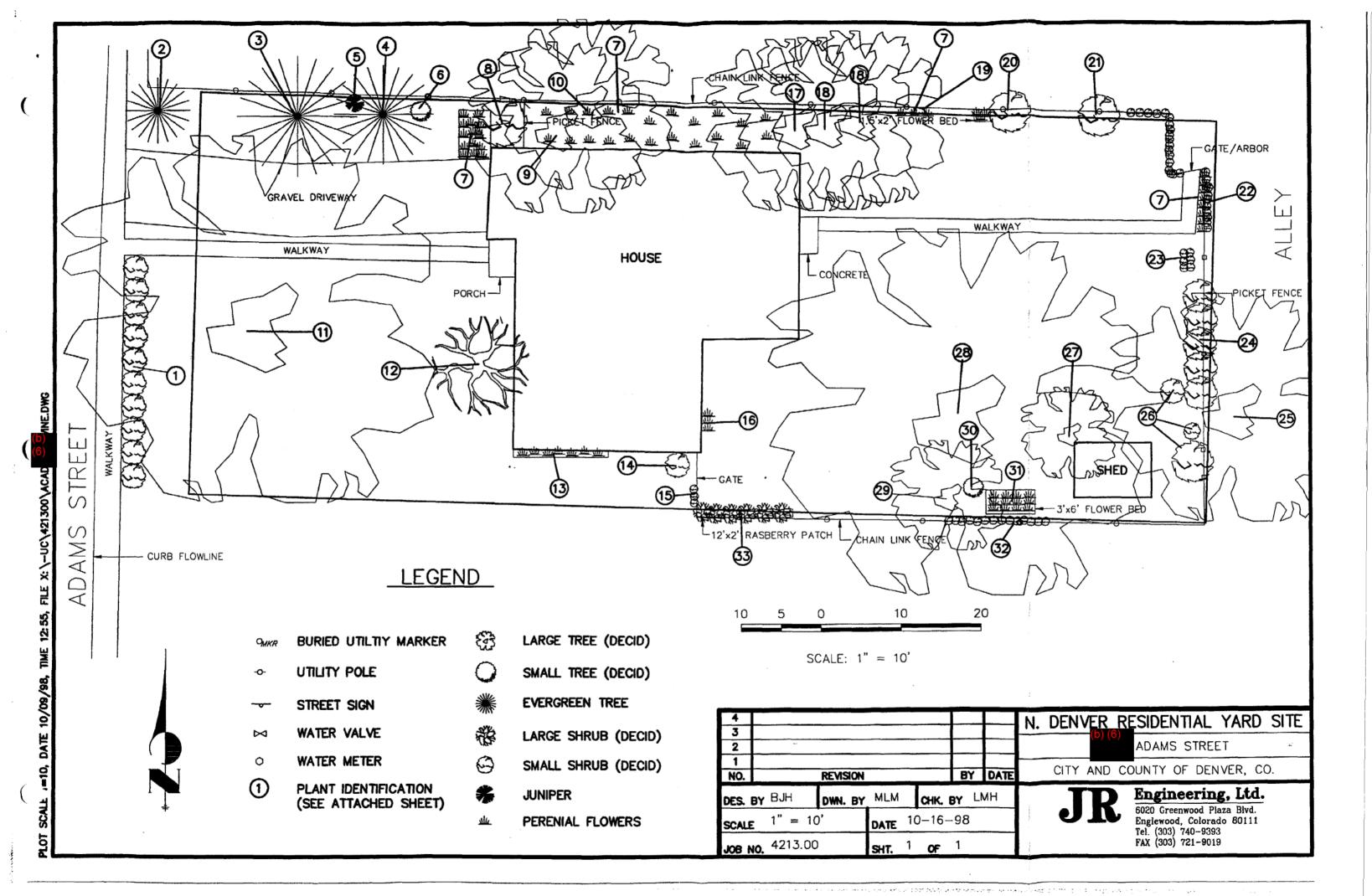
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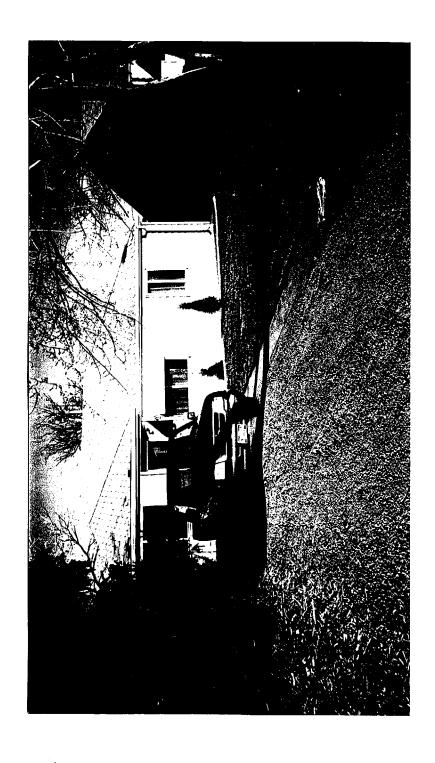
Sempervivum tectorum

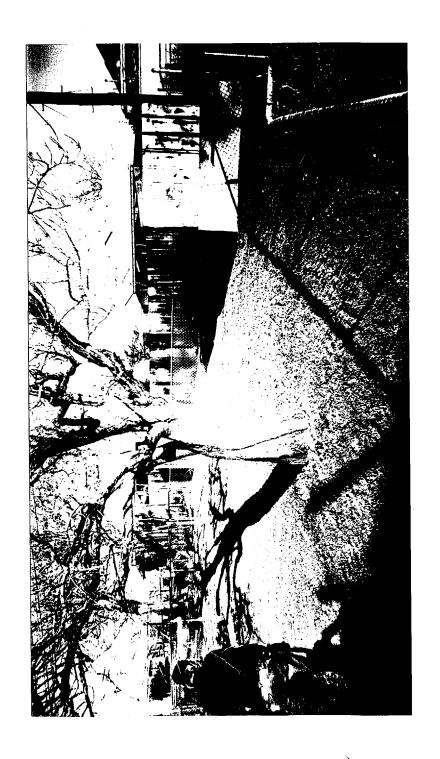
Size:

3-4" diameter

19.	3	Iris	Iridaceae		
20.	1	Rose	Rosa	Ht. 6', sp. 5',	
				on trellis	
21.	1	Rose	Rosa	Ht. 6', sp. 5',	
				on trellis	
22.	Vine	Five Leaf	Hedera	Ht. 2½' on	
		Ivy		fence, ht. 6'	
				on arbor	
23.		English Ivy	Hedera	Ground	
				cover 2'x 2'	
24.	16'	Border	Ligustrum	Hedge	
		Privit	obtusifolium	trimmed, ht.	
				4', sp.	
25.	1	Siberiah	Ulmus pumila	DBH 12", ht.	
		Elm		25', sp. 25'	
26.	3	Rose	Rosa	Ht. 6' to 3',	
				sp. 10'-1',	
				planted 4' ±	
				oc	
27.	1	Big leaf	Tilia	Ht. 6', sp.	
		Linden	platyphyllos	10'	
28.	1	Big leaf	Tilia	DBH 24", ht.	
		Linden	platyphyllos	35', sp. 40'	•
29.	1	Big leaf	Tilia	Ht. 8', sp.	
		Linden	platyphyllos	12', muliple	
				stems	
30.	1	Little Leaf	Tilia cordata	Ht. 4', sp. 2',	
		Linden		3 x 6 bed	
31.		Iris	Iridaceae	Ht. 3', sp.	
	·			12' on fence	
32.		Five Leaf	Hedera		
		Ivy			
33.	8	Red		2' x 12' bed	
		Raspberry			







)

# Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

# Finished Property Quality Control

Date: 12-2-98	Physical Address: Chay 15M
P.E.C.P. Followed: Yes N	Excavation Depth: 12"
Comments and/or Follow U  Items:  - Clothes //LES - /  - FUNCE WORK 12	4 · 3·98
any warranties, either expre	s and the P.E.C.P., this property is completed. This does not cover essed or implied, by subcontractors. Subcontractor warranties are contractor and the homeowner.
(b) (6)  Homeowner Signature (b) (6)	15-3-98 Date
Patrick Heytleman Quality Control Manager	12-298. Date

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

Clayton Street

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Clayton Street

Denver, CO

11/5/90

11/11/98

# 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

## 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the r meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then handexcavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

A xcavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

## 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

# 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

## 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods luding nights, holidays, or sundays.

ws will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.

\*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

## 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential meghborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

## 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

## 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

# 1 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

# 13.0 Special Homeowner Instructions Approved by EPA

## Front of Home

- \*Remove stump. Replace with a Silver Maple
- \*Leave property line fence in place on north side.
- \*Replace #2.
- \*Hand dig #3. Leave in place.
- \*Hand dig #5. Leave in place.
- \*Remove #4. Do not replace.
- \*Replace #6.
- \*Decrease slope to road, blend in steps during grading.

# South Side

- \*Remove concrete curbing.
- \*\* move trees #7 & #8. Replace with one Catalpa tree.
- \*Hand dig tree #20. Leave in place.

## **NorthSide**

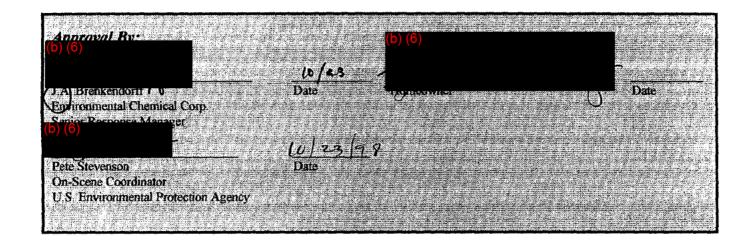
- \*Remove fence and replace.
- \*Remove #24 & #25.

## Back of House

- \*Remove #12, #13, #14, #16, #17, #18, #19, #21, #22. No replacement.
- \*Replace Black Oak 4' out from fence and garage.
- \*Remove arbor and curbing. Place sod in garden area.
- \*Remove #9, #10, #11, #12, #13. Do not replace.
- \*Remove incinerator.
- \*Remove welded fence. Cut off and plug holes. Then replace the fence at a new location, at the edege of the alley, with a sliding /rolling gate.

# 14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



Lot No:

Lot 2. Block 2 Wulfekuhlers Subdivision

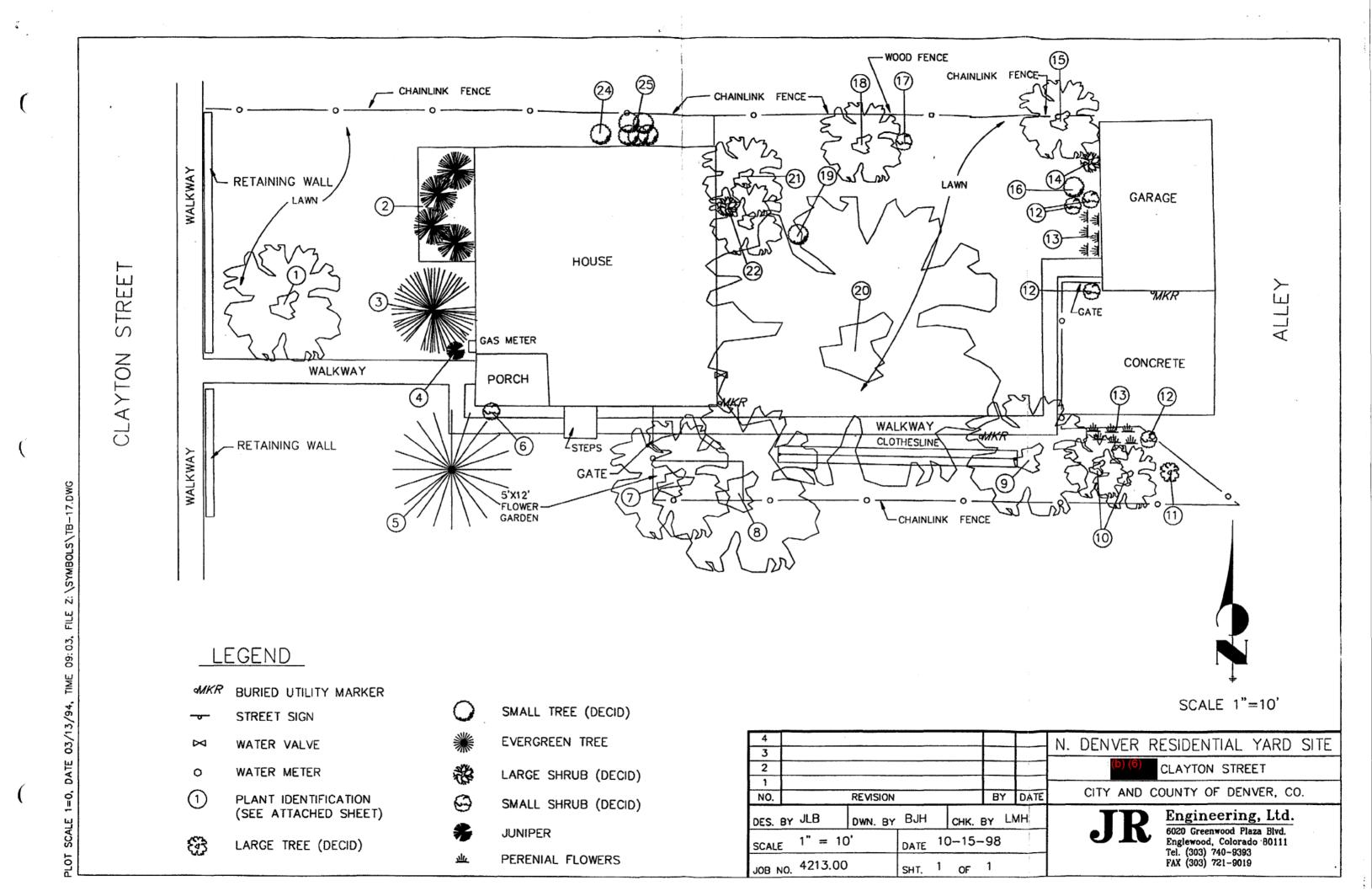
Owner:

Address:

Clayton

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	English Elm	ulmus procera	Dead Top DBH 3' Lower lima Ht 15' Sp 15'	
2.	4	Wilton Carpet Juniper	Juniperus Horizontalis "wilton"	7'x14 bed	
3.	1	Sutherland Juniper upright	Juniperus scopulorum	DBH 8" Ht 20' Sp 15'	
4.	1	Pfitzer compact Juniper	Juniperus chinensis pfitzeriana	Ht 3' Sp 3'	
5.	1	Bristle cone Pine	Pinus aristata	DBH 12" Ht 15' Sp 15'	
6.	1 .	Rose climber	Rosaceae	HT 3' Sp3'	
7.	1	Siberian Elm	Ulmus pumila	2 stem DBH 3" & 4" Ht 25' Sp 20'	
8.	1	Northern Catalpa	Catalpa speciosa	2 stem DBH 5"&3" Ht. 15' Sp. 15'	
9.	1	Cherry (ornimental)	Prunus	Ht. 10' Sp. 15'	
10.	10/12	Siberian Elm	Ulmus Pumila	Clump DBH 4"-1" Ht. 25/5' Sp. 10/3'	
11.	3	Northern Catalpa	Catalpa speciosa	DBH 2"- 1" Ht.12' Sp. 4'	

12.	1	Rose	Rosaceae	Ht. 6' Sp. 2'	
13.	6	Iris	Indaceae	Sp. 2	
13.		1115	Inducac		
14.	1	Lilac	Syringa	Ht. 10'	
			Vulgaris	Sp. 5'	
15.	1	Black Oak	Quercus	DBH 1"	
			Velutina	Ht. 8'	
				Sp.2'	
			-		
16.	1	Green Ash	Fraxinus		
			pennsylvanica lanceolata		
17.	1	Alpine	<del>                                     </del>	Ht. 3'	
17.	1	Currant	Ribes alpinum	Sp. 2'	
18.	1	English Elm	Ulmus procera	DBH 4"	
10.	1	English Emi	Omitas procesa	Ht. 25'	
1			:	Sp. 10'	
19.	1	Cherry	Prunus	DBH 3"	
		(tree)	sarrgenti	Ht.10'	
				Sp.8'	
20.	1	Apple tree	Malus	Trunk 2'	
7				with 5	
				stems	
				DBH 1'@	
				Ht. 25'	
21	1	Ciborion	I Ilmura mumila	Sp. 35'	
21.	1	Siberian Elm	Ulmus pumila	DBH 3" Ht. 20'	
		Lim		Sp. 15'	[
22.	1	Lilac	Syringa	Ht,8'	'
	_		vulgaris	Sp.6'	
23.	1	Siberian elm	Ulmus pumila	DBH 3"	
			_	Ht. 20'	
				Sp.15'	
24.	1	44	44	DBH 1"	
				Ht. 8'	
			<u> </u>	Sp. 4'	
25.	5	Green Ash	Fraxinus	DBH 1"	
			pennsylvanica	to1/2"	
			lanceolata	Ht. 8' to 5'	gis. And American
				Sp.5' to 2'	
1		L		5p.5 to 2	







# Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

# Finished Property Quality Control

Date: 11-30-98		Physical Address:_	Sreele
P.E.C.P. Followed Yes N	lo .	Excavation Depth:	12"
Comments and/or Follow U	<sup>J</sup> p	***************************************	
-None Notect.	والمرافقة والمستقد المستقدة والمستقدة والمستقد و		
According to all negotiation any warranties, either exprethe responsibility of the subsection (b) (6)  Homeowner Signature	essed or implied, by succontractor and the hore $\frac{1-5-99}{1}$	bcontractors. Subconti	
Patrick Heyneman () Quality Control Manager (6)	1-5-99 Date		
	12/22/98		
James Brenkendorff Senior Response Manager	Date		
Semor Kesponse Manager			

# PRE-EXCAVATION & CONSTRUCTION PLAN

## North Denver Residential Yards

(b) (6) Sieële

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Steele

October 21, 1998

October 26, 1998

Denver, CO

# 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

# 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the water meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any marked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden are will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump true and removed from the site.

All excavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

# 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

## 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

# 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
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- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.

- \*Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential regards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

## 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

## 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of onstruction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

## 9.0 Pedestrian Traffic Concerns and Exposures

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## 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

# 12.0 Equipment Requirements

331 Mini Excavator

(T) Skid Loader

(1) 4,000 gallon Water Truck(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

# 13.0 Special Homeowner Instructions Approved by EPA

\* Tree #1, Green Ash, will be left in place, with hand excavation done to protect the integrity of the tree.

\* Rose bush #2 will be removed and replaced.

\* All other trees and vegetation will be removed and not replaced.

\* Replace dirt driveway with gravel to the width of the existing pad and replace with gravel. (Road Base)

- \* Use decorative gravel on both sides of the house from house to fence line, carry gravel in back to a width of 5 feet, to the middle of the patio and end. Lanoscapes.
- \* Concrete walk on the south side of the property will be removed and replaced with decorative gravel. (See above)

  Continue gravel through the gate 5 feet and go to patio.
- \* Whenever gravel is placed, landscape fabric will be laid to prevent the growth of weeds.
- \* Remove and replace clothesline.

\* Flower bed in back (East) of house and remove replace with sod.

\* Remove and replace sidewalk in back yard, elevate for adequate drainage. & Conscele Cont.

\* Remove tires and rims to landfill.

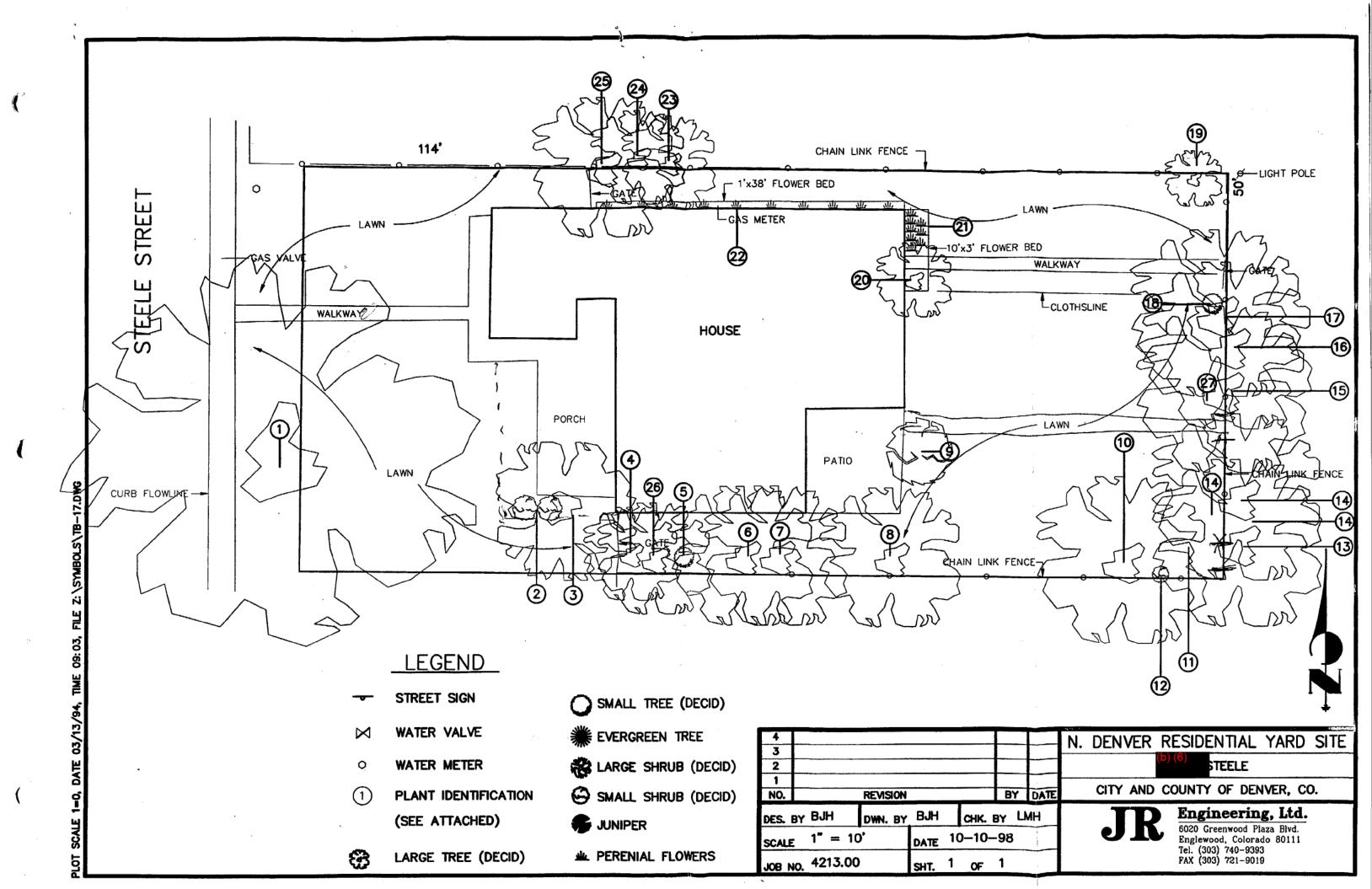
\* Remove curbing next to front porch and replace with mow strip.

## ─14.0 Additional Information

Celia Vanerloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basi

Approval By A	
10/16/38	10-16-95
J.A. Brenkendortt	Date
Environmental Chemical Corp.	
Senior Response Manager	
148196	fa Salatan salahan
	A Section of the Control of the Control
-Perle Stevenson Dale	A
U.S. Environmental Protection Agency	

16.	1	Tree of	Ailanthus altissima	Multi stem	•
•		Heaven		Dbh 4"-1"	
				Ht 25'	
	4			Sp 15'	
17.	1	Siberian	Ulmus Pumila	DBH 5"	Top dying out
		Elm		SP 12'	
				Ht 12'	
18.	1	White	Morus alba	DBH 4"	
		mulberry	1	Ht 25'	
	1			Sp 20'	
19.	1	Tree of	Ailanthus altissima	DBH 2'	
		Heaven		Ht 12'	
	1	,		Sp 6'	
20.	1	Siberian	Ulmus Pumila	DBH 2"	
	1	Elm		Ht 15'	
				Sp 8'	
21.	8	Perenial		3' x 10'	
		flower bed			
22.	10	Sage	Salva pachysandra	Ground	
		Pachysandra		covers	
		(veregated			
23.	3	Siberian	Ulmus Pumila	3 stem clump	
		Elm		DBH 4", 2",	
				2"	
				Ht 20'	
				Sp 10'	
24.	1	Tree of	Ailanthus altissima	DBH 4"	
		Heaven		Ht 25'	
				Sp 10'	
25.	1	Siberian	Ulmus Pumila	DBH 4"	
		Elm		Ht 30'	
				SP 15'	
26.	1	Tree of	Ailanthus altissima	DBH 4"	
		Heaven	·	Ht 15'	
			,	Sp 12'	
27.	12	Japanese	Syringa amurensis	Ht 6'	
		tree lilac	japonica	Multiple	
				stems along	,
				fence	



# EPA REGION VIII SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID #484254

# IMAGERY COVER SHEET UNSCANNABLE ITEM(S)

Contact the Superfund Records Center to view this (these) document(s). (303-312-6473)

SITE NAME: VASQUEZ BOULEVARD AND I-70

REPORT OR DOCUMENT TITLE: NORTH DENVER SOILS REMEDIATION
PROJECT NUMBER 9837-038-001, QUALITY CONTROL REPORT - COMPLETION
REPORTS, PHOTOS & REMEDIATION PLAN FOR 15 PROPERTIES AT THE SITE
INCLUDED
DATE OF DOCUMENT: 11/1/1998
DESCRIPTION, A DIVOTOS

# Environmental Chemical Corporation E.P.A.- North Denver Soils Site Project Number 9837-038-001

# Finished Property Quality Control

Date: 12-31-98		Physical Address:_	Humbolt
P.E.C.P. Followed: Yes N	10	Excavation Depth: /-	V.,
Comments and/or Follow I Items: 1770 10	PRING TIME	HIGH BA	19D ROS98 1850AP5
According to all negotiation any warranties, either expre	essed or implied, by sub and the hon	contractors. Subcontrac	
Homeowner Signature (b) (6)	12-31.98	•	
Patrick Heyneman/) Ouglity Control Manager	Date 12/21/48		
James Brenkendorff Senior Response Manager	Date		

# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

Humbolt

Mid November

Denver, CO

# 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

## 4.1 Clearing & Grubbing

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#### 4.2 Excavation

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## 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

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Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

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- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

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- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
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- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods luding nights, holidays, or sundays.

- \*C\_\_\_/s will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

## 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

# 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

### 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

## 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

# 1 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

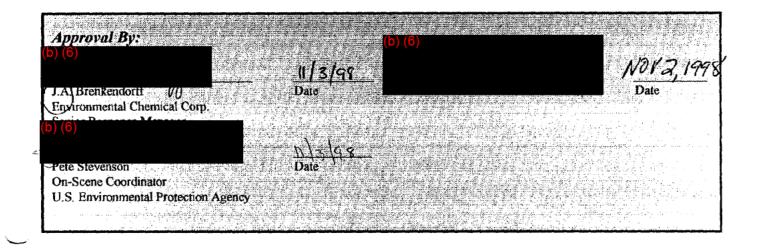
(1) Front End Loader

# 13.0 Special Homeowner Instructions Approved by EPA

- \* Pull flagstone from front of house and replace when done.
- \* Small sidewalk from city walk to curb, save.
- \* Rose #1 (x2), remove and replace. (landscaper)
- \* Lily of the Valley #2, remove and replace. (landscaper)
- \* Five Leaf Ivy #3, remove and replace. (landscaper)
- \* Remove Tulips on north fence (x3) and south fence (x2) and replace. (landscaper)
- \* Fern #7, remove and replace. (landscaper)
- \* Oregon Leaf Ivy #5, remove and replace. (landscaper)
- \* Clothesline post, hand excavate and leave in place.
- \* Remove rear flagstone and replace when done.
- \* Remove rock garden #12 and on north side, do not replace.
- \* Rose bushes (x2), west of #4, remove and replace. (landscaper)
- \* Free #10, trim lower branches and hand excavate.
- ree of Heaven #11, remove, do not replace.
- \* Roses #8 (x8), remove and replace. (landscaper)
- \* Metal edging on north and south fence, 1 foot from fence. (landscaper)

## 14.0 Additional Information

Celia Vanderloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



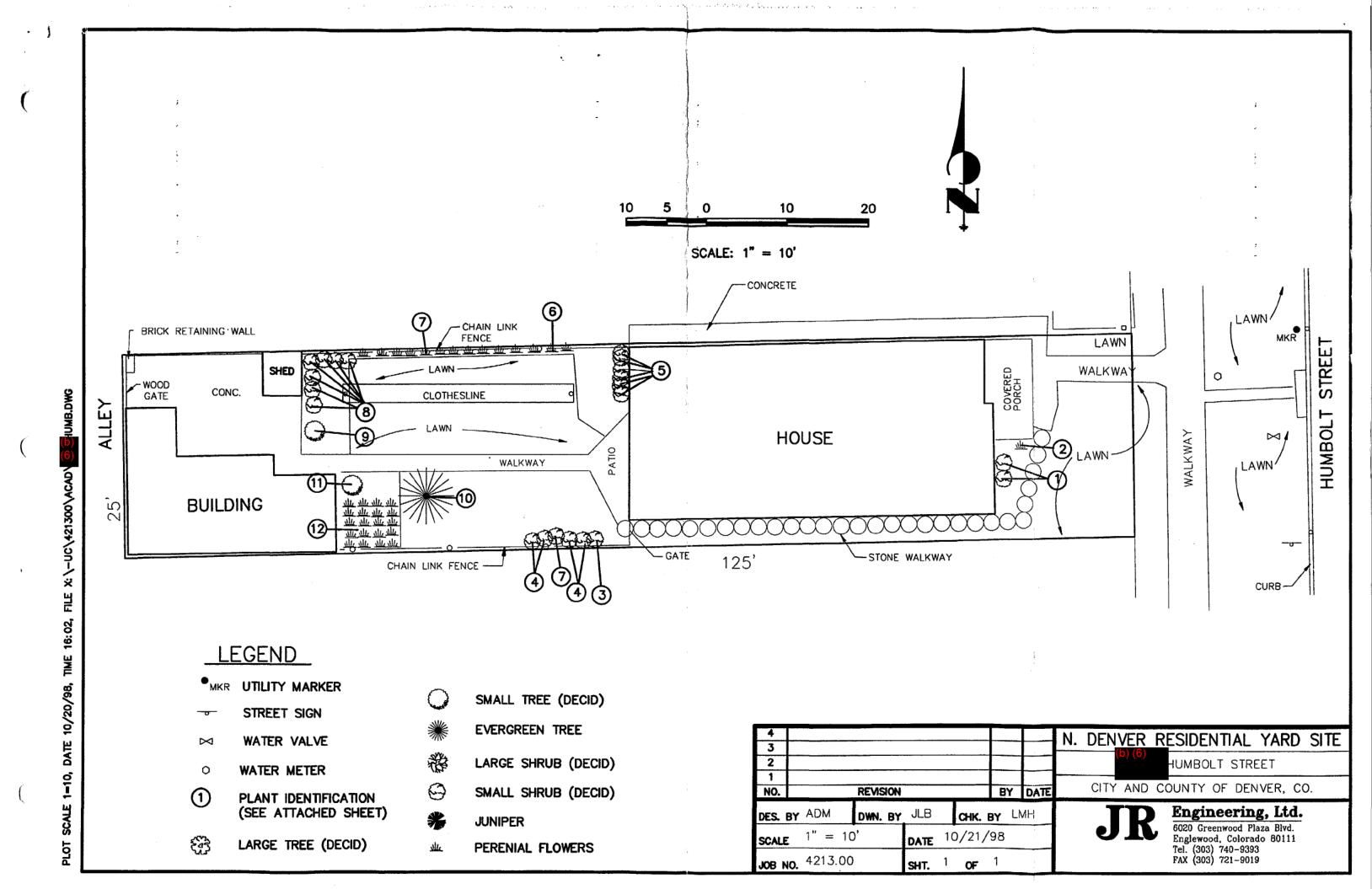
Lot No:

Lot 24. Block 19. Hyde Park Addition

Owner: Address:

Humbolt

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	2	Rose	Rosa	Ht 1', sp 1' Ht 2', sp 2'	
2.		Lily of the Valley	Convallaria majalis	1'x1' clump	
3.	3	5 leaf Ivy	Hedera	3 ht on fence 15' length	
4.	4	Rose	Rosa	Ht 5' to 1' Sp 2' to 3'	
5.	6	Oregon grape holly	Mahonia aquifolium	Ht 6' Sp 6'	In backyard no entrance, visual survey from gate
6.		Flowerbed		12'x12'	
7.	7	fern		Ht. 1'	
8.	8	Rose	Rosa	Ht 5' to 1' Sp 5' to 1'	
9.	1	Siberian Elm	Ulmus pumila	Ht 4' Sp 3'	
10.	1	Alberta Spruce	Picea glauca	DBH 6" HT 15' Sp 12'	
11.	1	Tree of Heaven	Ailanthus ailtissima	Ht 3' Sp 2'	
12.	1	Garden		Ht 10' x 10'	



# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards



1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

3818 Madison

11-16-98

11-19-98

Denver, CO

# 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

## 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the var meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any undertaked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees, careful hand excavation will be done to insure the integrity of the trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

A cavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

Concrete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

## 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

## 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

## 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods buding nights, holidays, or sundays.

- \* ws will continuously monitor the condition and surroundings of the property to identify and mitigate any potential hazards.
- \*Never approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

## 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds, maximum of 15 mph, when traveling through residential hoborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions. Truck traffic will be routed along bus routes as much as possible. All full loads will be tarped.

## 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material, based on TCLP results. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

# **Equipment Requirements**

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

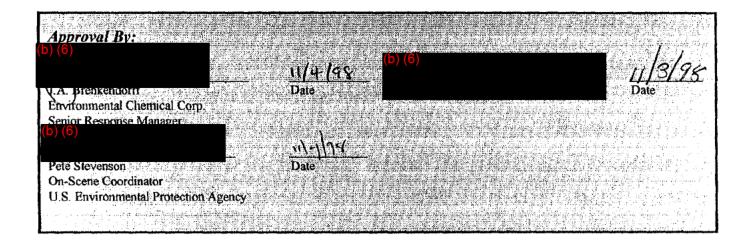
(1) Front End Loader

# 13.0 Special Homeowner Instructions Approved by EPA

- \* Remove and replace fence as required. (fence contractor)
- \* New irrigation system has been installed, carefully remove and replace as needed. Save control valves and sprinkler heads. (ECC and landscaper)
- \* Cottonwood #1 hand excavate and save.
- \* Sea Juniper #2, remove and replace with I gallon plant. Utilize metal border in lieu of 2" x 4" lumber. (landscaper)
- \* Petunia #3, remove and replace. Remove and replace brick edging. (landscaper)
- \* Clematis #4, remove and replace. (landscaper)
- \* Morning Glory, remove, do not replace.
- \* Honey Suckle #5, remove and replace. (landscaper)
- \* Trumpet Vine #6, remove and do not replace
- \* Quince #7, remove and replace. (landscaper)
- \* Quince #8 (x8), remove, do not replace. (landscaper)
- \* 1 ily's #12, remove and save bulbs for homeowner.
- \_ads #11, remove and replace. (landscaper)
- \* Spearmint at #8, remove and do not replace.
  \* Austrian Spruce #9, hand excavate and save.
- \* Sage at #23, remove and do not replace
- \* Rose #10, remove and replace. (landscaper)
- \* Hollyhock #13, remove and do not replace.
- \* Remove and replace rock garden at #26 and 27, do not replace plants.
- \* Clothesline posts, hand excavate and save.
- \* Petunias #3 (at shed), remove and do not replace.
- \* Remove and replace rock garden area next to garage and plant ground cover, Snow in Mountain, in back area. (landscaper)
- \* Plum tree #16, remove and replace with Lilac. (landscaper)
- \* Juniper #17, remove and replace with one gallon Juniper. (landscaper)
- \* Lilac #19, remove and do not replace.
- \* Do not sod behind gate.
- \* Iris #20 (x24), remove and replace. (landscaper)
- \* Lilac #20, hand excavate and save.
- \* Privet #22, hand excavate and save.
- \* Hand excavate around BBQ pit.
- \* Area on north side of house, between house and fence, utilize fabric and lava rock, two feet from house and sod the rest. (landscaper)
- \* \t area #23, add 6 ferns. (landscaper)

# 1 Additional Information

Celia Vanderloop, (303)-285-4065, of the City and County of Denver will be notified of work locations on a daily basis.



Lot No:

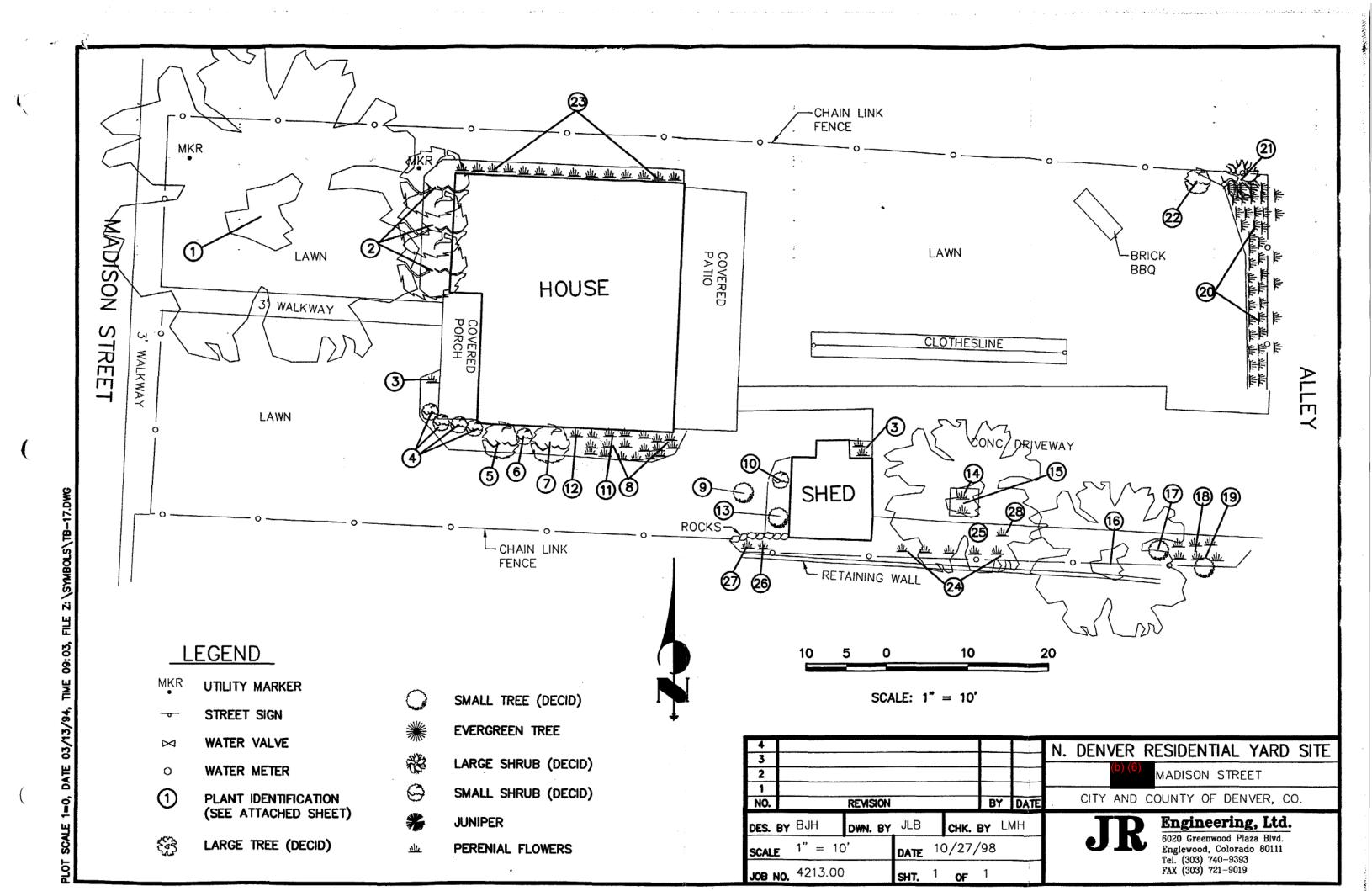
Lots 20 & 21, Block 1, Ivanhoe

Owner: Address:

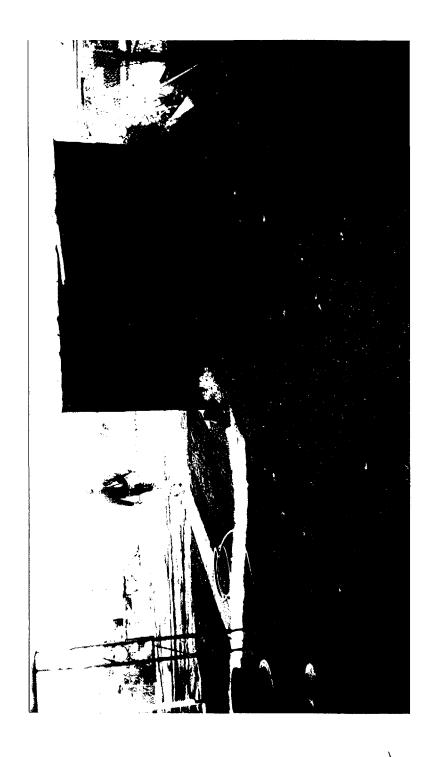
**Aadison** 

Item#	QTY	English Name	Latin Name	Size	Disposition
1.	1	Cottonwood	Populus	BBH 24", ht. 80', sp. 40'	
			sargenti		
2.	3	Sea Green	Juniperus	Ht. 4' trimmed, sp. 15' (3	
		Juniper	chinensis	shrub)	
3.	3	Petunia	Petunia		
			hybrida		
4.	5	Morning Glory	Impomaea	Ht. 7'-2'	
}		Vines		Sp. 12'-2'	
5.	1	Tatarian	Lonicera	Ht. 8', sp. 6'	
		Honey Suckle	tatarica		1
6.	1	Trumpet Vine		Climbing to 8'	
7.	1	Flowering	Chaenomeles	Ht. 8', sp. 6'	
}		Common	speciosa		
l		Quince		Ì	
8.	8	Flowering	Chaenomeles	Ht. 18", Sp. 18"	
		Common	speciosa		
1		Quince	1		
9.		Alberta Spruce	Picea glauca	Ht. 5', sp. 3'	
			conica		
10.	1	Rose	Rosa	Ht. 4', sp. 3'	
11.	6	Wood	Scilla	Ht. 3', sp. 3'	
		Hyacinths	campanulata		
12.	6	Lily	Lilium hosta		
		Hosta			Į.
13.	2	Holly hock	Althaea rosea	Ht. 2', sp. 2'	
14.		Crocus		Ground cover 5' x 5'	Flower bed
15.	1	Green Ash	Fraxinus	DBH 26", Ht. 15', sp. 20'	
			pennsylvanica		
			lanceolata		
16.	1	Siebold Cherry	Prunus siebaldi	DBH 6", St. 15', sp. 20'	
		(ornamental)			
17.	1	Sea Green	Juniperus	Ht. 4', sp. 6'	
1		Juniper	chinenesis (Sea	•	
			Green)		
18.	4	Morning Glory	Ipomoea	Flower bed 8 x 5'	1
		Holly Hock	Althaea rosea		
19.	1	Lilac	Syringa	Ht. 8', sp. 4'	
ļ			vulgaris	*	}
20.	24	Iris	Iridacea	3'x24' Flower bed	<b> </b>
		Morning Glory	Impomoea	24' climbing on fence	
-					

21.	1	Common Lilac	Syringa	Ht. 8', sp. 6'	
			Vulgaris		
22.	1	Amur Privet	Ligustrum	Ht. 4',	
			amurense	Sp. 4'	
23.	12	Sage	Salva	1½' x 28' Flower bed	Northside
		Pachysandra	pachysandra	along house	
	1	(variegated)			
	6	Ajuga			
24.	10	Iris	Iridacea		
25.	Ground	Sage	Salva	5' x 25' Bed with	
	Cover	Pachysandra	Pachysandra	8" – 12" granite boulders	
		(variegated)		,	
26.	Ground	Morning Glory	Impomdea	4' x 7'	
	Cover				
27.	6	Red Dianthus		In flower bed	
28.	1	Columbine	Aquilegia	Ht. 18", Sp. 12"	
		McCann Giant			}
	6	Male Fern	Dryopteris		
			Felix-mas		1







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# PRE-EXCAVATION & CONSTRUCTION PLAN North Denver Residential Yards

East 47<sup>th</sup> Avenue

1.0 Physical Location of Work:

2.0 Planned Start Date:

3.0 Estimated Completion Date

East 47th Avenue

October 12, 1998

October 21, 1998

Denver, CO

## 4.0 Chronological Plan of Activities

Unless otherwise noted, activities will commence as follows:

# 4.1 Clearing & Grubbing

Before the commencement of work on this property, Blue Stakes will identify and mark the locations of underground utilities including natural gas, telephone, and power lines. Underground water, sewer, and homeowner-installed, utility lines may not be identified and marked by Blue Stakes (water lines will be identified and marked form the street to the meter). The grubbing crew will inspect the site and consult the homeowner to determine the locations of any unmarked or unidentified utilities such as power lines, septic tanks, cesspools, etc. The grubbing crew will then hand-excavate test pits to determine the exact location and depths of these and any suspected utilities.

Steel plates will be used to preserve concrete flat work at equipment crossings.

The grubbing crew will identify and locate any sprinkler systems on the property. If it is determined to be necessary, the sprinkler system will be removed (will be replaced during restoration activities).

A professional tree service will be retained to remove trees identified for removal and grind the remaining stumps or pull out.

#### 4.2 Excavation

The exact specification of the area to be excavated is under the direction of Pete Stevenson, On-Scene Coordinator for the EPA. Excavation activities will not expose or disturb the root structure of any of the larger trees. Excavated soils will be loaded into 14 cubic yard dump trucks and transported to a designated landfill in the Denver area.

The yard will be excavated to a depth of twelve (12) inches (measured from the present ground surface). Garden areas will be excavated to a depth of eighteen (18) inches. Excavated soils from these areas will be loaded onto dump trucks and removed from the site.

A cavations will be tapered or sloped as not to endanger the structural integrity of any adjacent structures.

C\_\_rete flat work will remain in place and will not be disturbed during excavation activities (unless approved and directed by the EPA and homeowner). Travel or activities of workers and equipment in excavated areas will be minimized to the extent possible.

# 4.3 Backfill and Property Restoration

Backfill will consist of a topsoil that is of equal or higher quality than the recently removed soil.

Soil specifications are pre-determined and specs are available for review.

A professional landscape firm will re-sod grass areas and re-plant trees or plants as approved by the EPA (see Section 13.0 for special instructions).

## 5.0 Identification of Physical Hazards

Physical Hazards that may be present during activities on this property include (but are not limited to) the following:

- \*Slip, trip and fall hazards
- \*Crushing hazards
- \*Overhead and underground utilities
- \*Backing trucks and equipment
- \*Backhoe and Excavator swing area

# 6.0 Plans for Addressing Physical Hazards

All persons involved with this project have completed a 40-hour Hazardous Waste Operators (HAZWOPER) Course mandated by OSHA. This training has given them important knowledge regarding safety practices, including the identification and mitigation of physical hazards. Besides this training, each crew will be supervised by a foreman whose responsibility will include the enforcement of all safety practices. A Health & Safety Officer will also monitor this work and will have ultimate authority on all safety issues. Safety practices that will be observed during work activities include (but are not limited to):

- \*Maintaining eye contact with equipment operators at all times when inside the swing or operating radius of the equipment.
- \*Hand excavation test pits to locate underground utilities. Marking underground and overhead utilities that present an immediate or potential hazard to personnel or equipment. Propping low overhead lines to achieve the maximum possible working clearance.
- \*Clearly marking or barricading sudden changes in grade, such as the edges of the excavation, in areas where pedestrians may potentially pass.
- \*Spotters will be used to guide trucks as they are backed into loading positions or equipment that is reversign for sustained distances. Backing of trucks and equipment will be minimized to the extent possible.
- \*Excavated areas will be barricaded using snow fencing or construction banner tape during non-working periods including nights, holidays, or sundays.
- \*Crews will continuously monitor the condition and surroundings of the property to identify and mitigate any potential h\_ds.

\*i er approach an Excavator or Backhoe without making eye contact with the operator, and the operator shuts the equipment down.

#### 7.0 Haul Routes and Identification of Vehicular Traffic Hazards and Concerns

These hazards and concerns will be identified and evaluated on a daily basis. This property is in a residential neighborhood. Several narrow, windy roads and blind corners are present and unavoidable in this area. Flaggers will monitor and control traffic as trucks pull into and out of loading zones. If backing is required, a spotter will be utilized.

All loads of contaminated soils, as well as clean soils, will be tarped or covered to prevent any spillage or windblown soils from impacting the streets or residences in the area.

## 8.0 Plans for Traffic Control and Hazard Mitigation

The use of flag personnel will be employed to control both vehicular and pedestrian traffic. Flag personnel will be stationed at busy cross streets and at blind corners. Detours will be established as necessary to reroute traffic. Drivers will exercise extreme caution and reduce speeds when traveling through residential neighborhoods. Signs and barricades will be placed at appropriate distances to warn pedestrians and motorists of construction activities, detours, or lane restrictions.

# 9.0 Pedestrian Traffic Concerns and Exposures

No pedestrians will be permitted in the work zone. Sidewalks will be closed and clearly marked at all truck crossings and work areas. Workers will closely monitor the work zone and will immediately stop all activities if an unauthorized person enters the area. A safe access pathway will be provided for the homeowner.

#### 10.0 Plans for Dust Control

Dry, dust-prone soils will be wetted with water as necessary. A water truck with ample hose will be onsite during all soil disturbing activities. Air monitoring may be performed to determine the amount of airborne particulate.

#### 11.0 Decontamination Procedures

Waste generated from these activities is classified as nonhazardous material. A dry gross decontamination will be required by all personnel and equipment before leaving the work zone.

## 12.0 Equipment Requirements

(1) 331 Mini Excavator

(1) 4,000 gallon Water Truck

(1) Skid Loader

(2) 14 cy Tandem Dump Trucks

(1) Landscape Tractor

(1) Front End Loader

# 1. Special Homeowner Instructions Approved by EPA

- \* Remove and replace fence around the perimeter of property with a fence of a like kind.
- \* Replace concrete steps and short sidewalk on North side of property from main walk.
- \* Demolish and remove playhouse from back yard.
- \* Save Bird Bath and remove to another area, for replacement at a later date. Remove and replace concrete curb around Bird Bath.
- \* Remove and replace all plants with same type.
- \* Remove clothesline and reset after backfill.
- \* Siberian Elm (#7), replace with Aspen.
- \* Yellowood (#1), hand excavate and save.
- \* Trees of Heaven (#10, 13 & 8), replace with Aspen.
- #8 to different locale See mayor \* Pothole around Bird Bath for potential water and drain line.
- \* Sprinkler system by others.
- \* Remove and dispose of gravel pile next to garage.

## 14.0 Additional Information

The City of Denver will be notified of work locations on a daily basis.

Approval By:			
o) (6)	10/8/98		10/7/
e,A. Intenkendoru	Date	Inomeowie	Defite /
Environmental Chemical Corp.			
Senior Response Manager			utaggi Kapitan da Kabupatan da Parasa Palatan
(6)	INFlan		Park Budgangas Laura at ar
	.96/76		
Pere Stevenson	Date		
On-Scene Coordinator			
U.S. Environmental Protection Agenc	v	and the state of the same of the same	E CHARLEST BETTER DE MONTON DE CANADA DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE L

1 & 2 and N. 8' of lot 3, except rear 5', block 15 Elyria

Lot No: Owner: Address:

E 47 Avenue

Item #	QTY	English Name	Latin Name	Size	Disposition
1.	1	Yellowood	clodrastis	DBH 8"	
			lutea	Ht 30	,
				Sp15'	
2.	1	Green Ash	Froxinus	DBH 3"	
			pennsylvanica	Ht 15'	
			lancelata	Sp 12'	
3.	1	Green Ash	" "	DBH 3"	
				Ht 20'	
ļ				Sp 12'	j
4.	1	Green Ash	11 11	DBH 25"	
				Ht 15'	
				Sp 12'	
5.	2	Morning	Impomoea	Ht. 3' on	Sparse
		Glory Vine	1	fence	•
6.	3	Morning	11 11	11	Sparse
		Glory Vine			1
7.	1	Siberian	Ulmas pumila	Multi stem	
		Elm		4 - 1"	
				DBH	
1		1		Ht15' Sp12'	
8.	1	Tree of	Ailanthus	2 stem	
1		heaven	altissima	DBH	
				2" Ht 15	
1				Sp 6'	
9.	1	Morning	Impomoea	Ht 6' Sp 4'	
		Glory Vine		on trellis	
10.	1	Tree of	Ailanthus	DBH 2"	
		heaven	altissima	2 stem	
				Ht 15' Sp 6'	
11.	1	Morning	Impomoea	Ground	
		Glory Vine		cover Sp 5'	
				Ht 1 1/2'	
12.	6	Iris	Iridaceae		
13.	1	Tree of	Ailanthus	DBH 6"	
<u> </u>		heaven	altissima	Ht 20'	
				Sp12'	
14.	3	Morning	Impomoea	3' on fence	
		glory vine			
15.	2	11 11	Impomoea	3' on fence	Sparse
/				Sp 10'	

